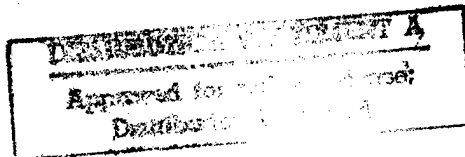


320106

JPRS 81926

5 October 1982



China Report

AGRICULTURE

No. 230

19980831 064



FOREIGN BROADCAST INFORMATION SERVICE

7
91
A05

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

5 October 1982

CHINA REPORT AGRICULTURE

No. 230

CONTENTS

PEOPLE'S REPUBLIC OF CHINA

I. GENERAL INFORMATION

National

Impetus Given Commodity Grain Production (ZHONGGUO CAIMAO BAO, 29 Jul 82)	1
Editorial Comment Figures for 1981	
Strengthening of Rural Economy Reported (BEIJING RIBAO, 17 Jul 82)	5
Third Quarter Peasant Farming Needs Cited (ZHONGGUO ZAIMAO BAO, 27 Jul 82)	7
Average Per Capita Net Income Figures for 3 Consecutive Years Given (NONGGUN GONGZUO TONGXUN, Aug 82)	9
Regulations Issued on Approval Procedures for New Crop Varieties (RENMIN RIBAO, 25 Jul 82)	10
Wide Promotion of New Cotton Variety Reported (RENMIN RIBAO, 29 Jul 82)	12
Wild Oil-Bearing Plants of Economic Importance Identified (ZHONGGUO CAIMAO BAO, 31 Jul 82)	14
Measures To Ensure Double Crop Late Rice Harvest Stressed (ZHONGGUO NOMGMIN BAO, 5 Aug 82)	18

Updating of Hybrid Rice Production Figures Provided (ZHONGGUO NONGMIN BAO, 8 Aug 82)	20
Fujian	
Efforts To Sort Out Mountainland Rights, Responsibilities Reported (FUJIAN RIBAO, 9 Jul 82)	21
Gansu	
Harvest Season Fire Prevention Work Emphasized (GANSU RIBAO, 10 Jul 82)	23
Briefs Summer Gain Prospects	25
Hebei	
Exhortation Issued for Continued Care of Thriving Crops (HEBEI RIBAO, 25 Jul 82)	26
Efforts Focused on Key Crops, Guarding Against Disasters (HEBEI RIBAO, 21 Jul 82)	29
Further Extension of Responsibility Systems Reported (HEBEI RIBAO, 28 Jul 82)	31
Rural Economic Diversification Spurred (HEBEI RIBAO, 22 Jul 82)	35
Heilongjiang	
New Emphasis Given Use of Mixed Livestock Feeds (HEILONGJIANG RIBAO, 4 Jul 82)	37
Accelerated Development Advantages of Blended Feeds 'RIBAO' Commentary	
Jiangsu	
Multiple Successes Reported From Farm Mechanization Pilot Projects (XINHUA RIBAO, 3 Aug 82)	40
Need for Increased Raising of Lean Pork Hogs Stressed (XINHUA RIBAO, 3 Aug 82)	42
Jilin	
Two Prefectures Become Major Commodity Grain Bases (RENMIN RIBAO, 3 Aug 82)	45

Shandong

Provincial Conference Held on Economic Development of Mountain Regions (DAZHONG RIBAO, 10 Jul 82)	47
Scientific Techniques for Raising Yields Conveyed to Peasants (DAZHONG RIBAO, 4 Aug 82)	51
Success of Economic Diversification in One Prefecture Hailed (DAZHONG RIBAO, 15 Jul 82)	53
Briefs	
Grain Dryer Built	55

Shanxi

Yuncheng Prefecture's Measures for Fighting Drought Explained (Tong Yun; NONGGUN GONGZUO TONGXUN, Aug 82) 11.....	56
Rainy Season Afforestation Statistics Given (RENMIN RIBAO, 26 Jul 82)	59

Sichuan

Fifth Consecutive Bumper Rapeseed Harvest Reported (SICHUAN RIBAO, 10 Jul 82)	60
Large Increase in Consumer Goods Purchases Reported (SICHUAN RIBAO, 13 Jul 82)	61
Summer Grain Procurement Quotas Overfulfilled (SICHUAN RIBAO, 14 Jul 82)	63
Policy Regulations Issued on Rural Economic Development (SICHUAN RIBAO, 14 Jul 82)	64

Xinjiang

Briefs	
Livestock Production Up	69

Xizang

Three Stage Plan for Xizang Economic Development Outlined (RENMIN RIBAO, 3 Aug 82)	70
---	----

Zhejiang

'Set Base Procurement Figure' System Explained (NONGGUN GONGZUO TONGXUN, Aug 82)	72
---	----

Livestock Feed Production Reported Greatly Increased (ZHONGGUO CAIMAO BAO, 3 Aug 82)	76
Running Water Provided to Selected Rural Areas (RENMIN RIBAO, 26 Jul 82)	78

ABSTRACTS

GRAIN DISEASE

SHANXI NONGYE KEXUE [SHANXI AGRICULTURAL SCIENCES], No 8, 1982.	79
---	----

GRAIN EXPERIMENTATION

YICHUAN [HEREDITAS], No 4, 1982	80
---------------------------------------	----

METEOROLOGY

QIXIANG [METEOROLOGICAL MONTHLY], No 7, 1982	83
--	----

I. GENERAL INFORMATION

IMPETUS GIVEN COMMODITY GRAIN PRODUCTION

Editorial Comment

Beijing ZHONGGUO CAIMAO BAO in Chinese 29 Jul 82 p 1

[Text] Although the country's grain output has developed very greatly since founding of the People's Republic, growth in the average amount of grain per capita has not been large because of the overly fast increase in population. The conflict between supply and demand is a very prominent one. What can be done? On the basis of many years experience, genuine strengthening of the building of commodity grain production bases and efforts to raise grain production in commodity grain base counties constitutes a strategic measure for fundamental amelioration of the conflict between grain supply and demand, and it is also a major step in development of the country's agriculture toward socialization and specialization.

Division of the country's more than 2,300 county level administrative units (including some municipalities and districts subordinate to municipalities) in terms of their commodity grain production produces three broad types of regions as follows: One is the regions in which commodity grain production is fairly advanced; another is the regions in which commodity grain production is not advanced; and the third is regions totally lacking in commodity grain production. On the basis of statistics and analysis for the maximum grain output year of 1979, the basic situation of the aforesaid three types of region is as follows: In the first type region are a total of 591 counties or 25 percent of the total number of county level administrative units in the country. Their grain yields average 694 jin per mu, and per capita output averages 1,077 jin. Each of these counties annually provides more than 100 million jin of state procurement or excess procurement grain, or an average of more than 200 jin per capita of state procurement or excess procurement grain for a 25.6 percent commodity rate. In the second type region are a total of 1,547 counties amounting to 65.4 percent of county level administrative units in the country. Their grain yields average 532 jin per mu; output averages 717 jin per capita; and the commodity rate is 14 percent. In the third type region are 226 counties or 9.6 percent of county level administrative units in the country. In these counties, grain yields per mu, average grain output per capita, and the commodity rate are all rather low.

The situation reported above shows that the 591 counties in the first type region are the major commodity grain production bases for the country. The commodity grain that they provide plays a decisive role in balancing grain supply and demand in the markets of the country. Generally speaking, grain production conditions in these commodity grain base counties are fairly good, and grain output, commodity rate, and the grain consumption level of the masses there are fairly high. However, if analysis is made of grain production in these counties, one can discern that the gap between one county and another is still fairly large. For example, Hanshan County in Anhui County averaged yields of 1,226 jin per mu in 1980, while in the same year in neighboring He, Wuwei, and Chao counties, which are commodity grain counties producing more than 100 million jin of state procurement and excess procurement grain for storage, yields averaged only between 750 and 760 jin per mu, a difference of more than 400 to 500 jin. In the commodity grain counties of Zhejiang Province that provided more than 100 million jin, yields averaged mostly more than 1,200 jin per mu, while in commodity grain base counties of Jiangxi Province that provided more than 100 million jin of grain, yields averaged only 700 to 800 jin per mu, a difference of between 400 and 500 jin per mu. In some commodity grain base counties in North China, in particular, grain yields per mu are very low, and the potential for increased yields is very great. On the Song Jiang and Nen Jiang plains, for example, where there are 42 counties, all but two rank as commodity grain producing basis. From a grain field area of almost 80 million mu, in 1980 yields averaged only 307 jin per mu. Were it possible to take action to increase Song Jiang and Nen Jiang plain grain yields per mu to 100 jin, within a year commodity grain output could be increased by 8 billion jin. From this may be seen that provided the grain field area of commodity grain base counties remains constant, prospects are extremely good for efforts to increase grain yields per mu, to increase total output, and to make a greater contribution to the country.

However, grain production in some commodity base counties is currently facing major problems principal of which are year by year reduction in the grain growing area and declines in yields per unit of area. This results in a drop in total grain output and corresponding reduction in state procurement and excess procurement grain sales to the state. Some commodity grain base counties have become ordinary grain production counties, and some have changed from net exporters to net importers of grain. Statistical data on 352 counties that were commodity grain counties for the 3 consecutive years 1978 to 1980 show that the area sown to grain in 1980 was 16.2 million mu less than in 1979, and further reduction occurred in 1981 as compared with 1980. In 21 counties in Hubei Province in which state procurement and excess procurement of grain for storage had been more than 100 million jin for 3 consecutive years beginning in 1978, in 1980 the grain growing area was 1.3 million mu less than in 1978. Figured on the basis of average yields per mu for these 21 counties in 1980, that amounted to a 1 billion jin decrease in grain production. In 13 counties of Jilin Province in which state procurement and excess procurement of grain for storage had been above 100 million jin for 3 consecutive years beginning in 1978, in 1980 the grain field acreage was 1.65 million mu less than in 1978. This amounted to a

600 million jin reduction in grain output. As a result of the steady decline in grain output, state and excess procurement grain quantities have correspondingly fallen.

China has a population of 1 billion, and getting enough food to eat is still a matter of major importance. As population continues to increase in future, and as people's living standards rise and production develops, the amount of grain required will increase year by year. This means that all jurisdictions will have to take grain production very very firmly in hand, and they will have to assure steady growth in grain output from commodity grain base count counties in order to expand the country's sources of grain.

Increase in grain output has many facets, and guaranteeing the necessary growing area is a fundamental condition for increased grain output. All commodity grain base counties must stabilize the existing grain growing area, and in places where conditions for the growing of grain permit, some wastelands should be developed for agriculture to expand the grain growing area, efforts made on this basis to increase yields per unit of area to assure steady growth in total grain output. In order to attain this objective, the growing area for economic crops such as cotton, oil-bearing crops, sugar crops, tobacco, jute, and ambari hemp must everywhere be layed out under the guidance of state plan with no usurpation of the grain growing area. Some commodity grain base counties in areas south of the Chang Jiang have used high yield grain fields for the growing of cotton, but yields per unit of area have not been high. They should proceed from the situation as a whole, weighing the advantages and disadvantages, the gains and the losses to make readjustments so as to take full advantage of these places for growing grain.

In some areas today, benefits from the growing of grain grows are less than from the growing of economic crops. In some high yield old commodity grain bases this problem is particularly prominent. It should be pointed out that conditions in these areas for development of grain production are far superior to those in other places. All that is required is policy guarantees of equitable economic earnings to grain growing peasants and it will be possible to advance local development of grain production. In this regard, it is necessary to readjust gradually the economic benefits derived from the growing of grain crops and economic crops, bringing them closer together to encourage peasants to strive to do a good job of grain production.

Experience has shown that in buttressing construction of commodity grain bases and developing commodity grain county grain production, it is necessary to proceed on the principle of acting within ones capabilities for a planned step by step advance. In view of the present state of the country's financial and material resources, in the short term, marching orders for the development of grain production in the 591 counties of the first type regions should be to keep high yield areas as they are, and to increase yields per unit of area in medium yield and low yield areas, with the emphasis being on medium yield areas. In the commodity grain production bases producing high yields such as the lake Tai Plain, the Chengdu Plain, the Pearl River Delta, and the Dongting Lake Plain, action should be taken to lower production costs and to increase economic benefits so that no decline will occur where yields per unit of area are already very high. In addition it is necessary to

improve the low yield fields existing in these high yield areas, to increase yields per unit of area, and to assure steady growth in grain production. Medium yield commodity grain production bases such as the Boyang Lake Plain, the Jiang-Huai Plain, and the Jiang-Han Plain require vigorous efforts to raise yields per unit of area and to increase total output. In these areas, generally increased fertilization would increase grain yields, so the state should provide major support to them with funds and materials to effect fairly great development of grain production there. Suppose for a minute that for the country's 591 counties in which commodity grain production is fairly advanced that grain yields per mu could be raised from the 694 jin of 1979 to 800 jin, i.e. a 15 percent increase for a 44.8 billion jin increase in grain output. Since the grain ration level in these areas is fairly high, the commodity grain rate increase might be calculated at 60 percent, i.e. an increase of 26.9 billion jin of commodity grain. At such time, the 591 counties would be able to provide 100 billion jin of commodity grain. When newly emerging commodity grain producing areas were added to this, a rather tremendous growth would result in the quantity of the country's commodity grain production. Development of agriculture's largest and most important grain producing commodity economy would give extremely great impetus to all around development of the rural economy.

Figures for 1981

Beijing ZHONGGUO CAIMAO BAO in Chinese 29 Jul 82 p 1

[Text] Statistics from 495 commodity grain base counties show that in the 1981 grain year, state procured grain for storage amounted to about 57 percent of state procured grain for storage in the country as a whole, and played an important role in balancing national receipts and expenditures of grain for the year.

Six of the 495 aforementioned commodity grain base counties each provided more than 500 million jin of state procured grain for storage in 1981. Holding first place was Changtu County in Liaoning Province (from which 1,093,1400 jin was state procured for storage). Second was Lishu County in Jilin Province (877.33 million jin). Third was Huaide County in Jilin Province (812.82 million jin). State procurement for storage from Xinghua County in Jiangsu Province, Bayan County in Heilongjiang Province, and Yushu County in Jilin Province individually topped 500 million jin.

In terms of the agricultural population average for the province as a whole, five counties sold more than 1,000 jin per capita of state procurement and excess procurement grain in 1981. The county holding first place was Aihui County in Heilongjiang Province where grain sales to the state averaged 1,443 jin per capita.

9432

CSO: 4007/555

STRENGTHENING OF RURAL ECONOMY REPORTED

Beijing BEIJING RIBAO in Chinese 17 Jul 82 p 4

[Article: "Rural Economic Strength Promotes Development of Industrial Productions; Gross Output Value of Agriculture in Recent Years Has Averaged 5.6 Percent Annual Increase; For Most Agriculture-Associated Products, Both Buying and Selling Are Vigorous"]

[Text] A new situation has occurred in the country's industrial production this year. In most cases, agriculture-associated products have shown both brisk output and sales. Some industrial plant cadres have said that for anything related to the word "agriculture," production initiative has become greater than formerly.

As of the end of June, most industrial goods using agricultural or livestock products as raw materials have increased in varying degrees throughout the country. Output of yarn, for which cotton is the major raw material, has increase 9.2 percent over the same period last year, and the output of cotton cloth has increased by 8.8 percent. Silk textiles have increased by 16.5 percent, and woolen yarn has increased by 37.3 percent. Sugar output is up by 12.6 percent, and output of cigarettes and beer has risen by 15.2 and 20.7 percent respectively. At the same time a tremendous increase has also taken place in the amount of products sold mainly to rural villages such as chemical fertilizers and farm machinery and equipment. Sales of hand tractors have increased by 40.3 percent. Total value of products such as small tractors, small horsepower diesel engines, hand operated spraying devices, rubber-tired pushcarts, and agricultural water pumps amounted to 865 million yuan for the first 5 months of this year. This represented a 42 percent increase over the same period last year, and such an amount of increase in output is a rarity.

Since the Third Plenary Session of the 11th Party Central Committee, the CCP Central Committee and the State Council have brought order out of chaos, have readjusted the proportional relationship among agriculture, light industry, and heavy industry, have adopted a series of policy measures to support and develop the rural economy, and have instituted various forms of agricultural production systems of responsibility. National gross output value from agriculture has averaged annual incremental increases of 5.6 percent for a strengthening of agriculture, the foundation of the national economy. Today, not only does agriculture provide city and town residents with copious supplies

supplies of grain, oil, meat, eggs and such agricultural and sideline products for improvement in market supply, but it directly promotes development of industrial production by producing raw materials and offering a market for sales. Major raw materials that agriculture supplies for industrial production such as grain, cotton, oil-bearing crops, milk, leather, flue-cured tobacco, silkworm cocoons, jute, and ambari hemp have increased in varying degrees during recent years. In 1981 national output of cotton totaled somewhat more than 2.96 million tons, a slightly more than one-third increase from 1978. In addition, total output of oil-bearing crops also rose from 5,218,000 tons in 1978 to somewhat more than 10.2 million tons in 1981, or almost double. In rural villages everywhere during the last 3 years, outputs of sugarcane and sugarbeets have increased 51 percent so that the sugar refining industry, which has for long lacked sufficient raw materials, is now able to steadily develop at the high speed rate of 11.7 percent annually.

Accompanying the strengthening of the rural economy has been an almost two-thirds increase within 3 years of average net earnings for peasants throughout the country. This has opened a vast market for the development of industrial production.

A comparison of the past 5 months of this year with the same period last year shows a one-third increase in sales to rural villages of small tractors, and rubber tired pushcarts, and sales of water pumps have increased 49 percent. Currently supplies of sewing machines and bicycles are tending toward saturation in cities; however, thanks to the 70 percent and somewhat more than 50 percent respective increases in quantities sold in rural villages and towns during the past 5 months, output of these two products has continued to grow by 30 to 40 percent over the same period last year.

9432

CSO: 4007/543

THIRD QUARTER PEASANT FARMING NEEDS CITED

Beijing ZHONGGUO CAIMAO BAO in Chinese 27 Jul 82 p 1

[Article: "Peasants Strive to Farm Fields Scientifically and Give Attention to Sensible Use of Chemical Fertilizers and Pesticides. New Structural Changes in Supplies of Agricultural Means of Production Everywhere"]

[Text] Data provided by the Ministry of Commerce show retail sales figures for agricultural means of production of all kinds for the period January to June to have totaled 11.4 billion yuan, a 12.5 percent increase over the same period last year. This included chemical fertilizers, chemical pesticides, spraying apparatus, dusting apparatus, and plastic film for agricultural use, all of which increased over the same period last year. Despite a decline in business department sales of medium and small farm implements and draft animals from the same period last year, because of peasant purchases from country fair markets and other channels, total quantities purchased increased.

Representative sampling shows that for the first half of this year additional peasant purchases of medium and small farm implements from all channels increased by from 20 to 30 percent over the same period last year.

The peasants are striving to farm the fields scientifically, and are giving increased attention to sensible use of the means of agricultural production. During the first half of this year, everywhere new changes took place in the structure of the supply of agricultural means of production. For example, while sales of nitrogenous and phosphate fertilizer continued to rise, quantities of potash fertilizer supplied increased by 59.1 percent over the same period last year in a gradual trend toward equitability in the proportional supply of nitrogenous, phosphate, and potash fertilizers. Among pesticides, a decline also occurred in the supply of organic chlorine pesticides of high residual toxicity. Quantities supplied of various kinds of prepared pesticides containing benzene hexachloride fell by 13.8 percent from the same period last year, and supplies of prepared pesticides containing DDT fell by 14.2 percent. Meanwhile, supply of pesticides of high effectiveness and low toxicity showed remarkable increase. For example, supply of dimethoate increased 43.7 percent over the same period last year, and kitazin increased by 33.3 percent.

A person in charge at the Means of Agricultural Production Bureau of the Ministry of Commerce pointed out that the last half of the year continues to

be a busy season for supply of the means of agricultural production. The amounts of commodities such as chemical fertilizers and agricultural pesticides needed for fall harvesting and winter planning will continue to increase, so supply tasks are still very heavy. Right now most sources of commodity supply are fairly ample, and needs can be satisfied under normal circumstances. However, for some varieties of fertilizer such as superior quality fertilizers, compound fertilizers, and for some pesticides such as new varieties of high effectiveness and low residual toxicity, as well as for some bamboo and wooden farm implements, and for oxen and donkeys, supplies continue to be rather tight. More planning has to be done for wood and bamboo, raw and processed materials that have been in short supply for a long time. Substitutes must also be found. Iron and plastics should be actively promoted to replace wood to bring about a new situation within a short period of time. The third quarter of the year is the season for all kinds of frequent natural disasters, so it is also necessary to give close attention to the disaster situation everywhere and to prepare materials needed to provide disaster relief.

9432

CSO: 4007/543

AVERAGE PER CAPITA NET INCOME FIGURES FOR 3 CONSECUTIVE YEARS GIVEN

Beijing NONGGUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 8,
Aug 82 p 9

[Article: "Three Consecutive Years of Tremendous Increases in Peasant Earnings"]

[Text] Survey data from the State Statistical Bureau on the earnings of 18,529 commune member families in 28 provinces, municipalities, and autonomous regions (excluding Tibet) show that since the Third Plenary Session of the 11th Party Central Committee, tremendous increase has taken place in the earnings of these commune members for 3 consecutive years, that changes have occurred in the income structure, and that peasant purchases of the agricultural means of production have increased.

According to the State Statistical Bureau survey, calculation of average per capita net income for these more than 18,000 commune member households showed a 26.60 yuan increase in 1981 over 1980, bringing net per capita income in 1981 to 233.40 yuan. The 89.90 yuan increase in earnings over the 3 year period represents a tremendous continuing increase in earnings unprecedented since the founding of the People's Republic.

Peasant household sideline occupation net earnings increased more rapidly than earnings distributed by the collective. In 1981, average annual per capita earnings of these peasant households received from the collective amounted to 116.20 yuan, a 31.3 percent increase from 1978, while net from household sideline occupations amounted to 84.50 yuan, a 1.36 fold increase.

Cash income has increased rapidly, its ratio climbing remarkably. In 1981 average per capita cash income amounted to 153.20 yuan, up 1.4 fold from 1978.

The number of households with high incomes increased, and the number of households with low incomes decreased. The number of these more than 180,000 households having average per capita net incomes of more than 300 yuan rose from 2.4 percent in 1978 to 22.6 percent in 1981. The number of households having average per capita net incomes of less than 150 yuan fell from 65 percent in 1978 to 19.7 percent in 1981.

Increase in peasant earnings has provided funds for expansion of reproduction. Private purchases by these commune member households of fixed assets of a manufactured nature amounted to 2.8 percent of net income.

REGULATIONS ISSUED ON APPROVAL PROCEDURES FOR NEW CROP VARIETIES

Beijing RENMIN RIBAO in Chinese 25 Jul 82 p 2

[Article: "Ministry of Agriculture, Animal Husbandry, and Fishery Promulgates 'National Trial Regulations for Examination and Approval of Agricultural Crop Varieties.' Accelerates Use of New Results in Breeding and Planned Promotion of Fine Varieties"]

[Text] The Ministry of Agriculture, Animal Husbandry, and Fishery has stipulated the promulgation and implementation in May this year of the "National Trial Regulations for Examination and Approval of Agricultural Crop Varieties" in order to strengthen management of agricultural crop varieties, speed up use of new results in breeding, promote fine varieties in a planned way, and advance development of agricultural production.

Excerpts of provisions contained in the trial regulations are as follows:

The country, provinces, municipalities, and autonomous regions are to establish individual crop variety examination and approval commissions. Prefectures and counties may establish crop variety examination and approval units as needed.

Farm crop variety examination and approval commissions are to be composed of representatives from agricultural administrative departments, seed promotion departments (seed stations and seed companies), agricultural research units, agricultural academies and schools, peasant breeding experts, and relevant grain, textile, and standards units.

The duties of farm crop variety examination and approval commissions will be:

1. Formulation of rules and regulations, systems, and methods pertaining to the work of farm crop variety examination and approval.
2. Examination and approval of new varieties including their economic effectiveness, area suitability, and corresponding farming techniques.
3. Leadership and organization of area experiments and production experiments for varieties.
4. To make suggestions pertaining to varieties already being promoted and about demonstration, breeding, and promotion of new varieties.

The national farm crop variety examination and approval commission is responsible for examination and approval of new varieties being given interprovincial

promotion. Provincial, municipal, and autonomous region examination and approval commissions are responsible for examining and approving new varieties bred by or introduced into the local province, municipality, or autonomous region.

Farm crop variety area experiments and production experiments are to be conducted on a natural area or site basis.

Varieties examined and approved by the national farm crop variety examination and approval commission are to be recommended by national area experimentation and production experimentation units responsible for them. Varieties examined and approved for promotion will be issued a variety examination and approval inspection certificate by the national farm crop variety examination and approval commission. This will be formally published by the Ministry of Agriculture, Animal Husbandry and Fishery. All new varieties examined and approved for promotion by provinces, municipalities, and autonomous regions are to be published by provincial, municipal, or autonomous region agriculture departments (or bureaus), and are to be reported as a matter of record to the national farm crop variety examination and approval commission.

When new varieties that have been examined and approved for promotion demonstrate outstanding results in increased yields in production, units or individuals that have made outstanding achievements in the breeding (or introduction of varieties), in area experiments and production experiments, and in breeding and promotion work should, on the recommendation of farm crop variety examination and approval committees to units concerned, be given bonuses.

Varieties that have not been examined and approved or whose examination and approval was turned down may not be promoted, may not be made the subject of requests for awards, and may not be publicized in periodicals or broadcasts. Those who take it upon themselves to promote varieties and cause losses in production, those who resort to deception in reporting data to higher authority, and those who steal results are to be punished according to circumstances.

9432

CSO: 4007/512

WIDE PROMOTION OF NEW COTTON VARIETY REPORTED

Beijing RENMIN RIBAO in Chinese 29 Jul 82 p 3

[Article: "Large Area Promotion of 'Zhongmiansuo No 1' Cotton Begun; Breeding of New Variety To Promote Double Bumper Harvests in Grain and Cotton"]

[Text] A new variety of cotton bred by the Cotton Institute of the Chinese Academy of Agricultural Sciences, "Zhongmiansuo No 10" is a rather good breakthrough type variety that China has developed in recent years. Following several years of regional experiments, beginning this year large area promotion of it will begin in the Huang-Huai-Hai areas on a more than 400,000 mu growing area. Other cotton-growing areas of the country will also test plant it in more than 200 counties.

The Huang-Huai-Hai Plain is China's major cotton producing area, but in this area the conflict between grain and cotton for growing space is fairly pronounced. Formerly, for lack of a suitable cotton variety, more than 90 percent of cottonfields were farmed for one crop a year. When cotton was harvested, grain could not be harvested. Beginning in 1975, the Chinese Academy of Agricultural Science's Cotton Institute researchers bred new cotton varieties to solve the contest for space between grain and cotton. In 1978 breeding of cotton variety "Zhongmiansuo No 10" was finalized, cotton-growing area experiments in the Huang He basin followed for 3 consecutive years thereafter. Experts believe this variety meets requirements for bringing about a change in the farming system in the Huang-Huai-Hai region to win bumper harvests of both grain and cotton, that fiber quality is outstanding, and that both early ripening characteristics and bumper output qualities are fairly good.

"Zhongmiansuo No 10" is sown late, sprouts easily, ripens early, and has a short growing season of 113 days in its entirety, which is about 30 days shorter than for most early ripening varieties. For this reason, it can be farmed continuously with wheat or rapeseed for two crops every year. In test planting demonstrations at 22 sites in 12 counties in the 6 provinces of He'nan, Hebei, Shandong, Shanxi, Shaanxi, and Jiangsu, "Zhongmiansuo No 10" and a suitably early maturing wheat variety were paired, the cotton being sown after the wheat was harvested. Yields of ginned cotton averaged 114 jin per mu, and the previous wheat crop averaged yields of 530 jin per mu. When

"Zhongmiansuo No 10" was cropped in succession with rapeseed, yields of ginned cotton averaged 143 jin per mu, and the previous crop of rapeseed averaged yields of 208 jin per mu. In 1981, results were very good from the test planting of an area of almost 10,000 mu of "Zhongmiansuo No 10" with wheat and rapeseed as the previous crop. Following large area promotion, many communes and brigades having requisite water and fertilizer conditions can change from the growing of a single crop of cotton each year to the growing of wheat and cotton or edible-oil crops and cotton.

9432

CSO: 4007/519

WILD OIL-BEARING PLANTS OF ECONOMIC IMPORTANCE IDENTIFIED

Beijing ZHONGGUO CAIMAO BAO in Chinese 31 Jul 82 p 2

[Article: "Full Use of China's Wild Oil-Bearing Crop Resources"]

[Text] China has a vast population and limited cultivated land, so despite great development of oil-bearing crop production, the average per capita supply of edible vegetable oil remains very low. The gap is very great as compared with the 30 and 40, or 40 and 50 jin in some countries. There is a fairly great shortage of the various dry vegetable oils needed in industry. How to make full use of abundant wild oil-bearing plant resources (including the as yet unused xylophytic oils) is a major topic currently requiring study.

Pertinent records show about 600 or more varieties of wild oil-bearing plants in China more than 13 million dan of which could be harvested for use to provide more than 260 million jin of fats and oil. This amounts to 80 percent of the country's industrial use of oil. A very great potential remains to be tapped. These wild oil-bearing plants contain many outstanding properties as follows:

First is high rate of oil content and great economic benefits. The seeds of the ferreus mesua [*Mesua ferrea*] in Yunnan and Guangxi provinces, for example, have an oil content as high as 78.99 percent, which is 9.09 percent higher than the highest oil content of English walnuts, and which is more than 20 percent higher than the world renowned oil king, the oil palm. Another example is the large-fruited hodgsonia [*Hodgsonia macrocarpa*] found in Yunnan and other places, whose oil content is greater than that of watermelon seeds. A single large-fruited hodgsonia tree produces between 70 and 80 jin of oil a year, more than enough for a family of several. Statistics show that wild oil-bearing plants in China with an oil content of 50 to 60 percent or more number 60 different varieties; those with an oil content of 20 percent or more number more than 300 varieties.

Second is an especially large fat and oil content and a wide range of uses such as domesticated oil-bearing crops cannot match. More than 20 species of wild oil-bearing plants such as the climbing fig, and the Chinese mosla [*Mosla chinensis*] contain a 50 to 60 percent linolenic acid content, which can be used in the production of paint and soap. It may also be used to

replace imports of linseed oil for use in automobile industry casting technology. Some is able to prevent thrombosis, and plays a special role in the metabolism of fat in the human body. Sixteen varieties of wild oil plants including *Actinodaphne acutivena* and *Hyoscyamus niger*, which have an oleic acid content and a linolenic content of 60 to 80 percent may be widely used in the plastics industry as well as in the production of engineering plastic nylon-9 and of emulsifiers and dryers. They also are fairly high in nutrients and are beneficial in medical treatment. Eighty percent of medicines used for the treatment of high blood pressure contain linolenic acid. More than 10 species of oil-bearing plants such as juansinan [4831 4828 2809] and the fruit of the cubeb litsea tree [*Litsea cubeba*] have a more than 60 percent lauric acid content, which is a major raw material in various chemical industries. It is also an additive for lubricants, a stabilizer in the plastics industry, and a raw material for insecticides. Wild oil-bearing plants such as guanghuaju [0342 5478 8603] and *Litsa cupeba* have a capric acid content of from 50 to 70 percent and are used to make lubricants. This is a lubricant that is indispensable in space navigation launchers, and it is also a raw material for the manufacture of nylon-610 and nylon-9 fibers. Long neglected wild carrots contain petroselinic acid, which is used to increase strength and elastic in the production of stretch knitgoods.

Third is a Wide Range of Uses and Great Value for Multiple Uses. Heikenan [7810 3011 2809] and kernels of houzhang [3729 2874], for example contain large quantities of fats and oils such as lauric acid and capric acid. The fruit skins contain large amounts of stearic acid and palmitic acid, and the roots, stems, and leaves contain aromatic oils. Another example is oil from the seeds of Fumaotiebangzhui [5415 3029 6993 2761 6923], which contains many useful ingredients, and the root tubers of which may be used in medicine. It is also possible to extract tannin, white wax, starches, protein, and vitamins from the stalks and leaves of quite a few wild oil-bearing plants, deriving great economic benefit thereby.

Back in the late 1950's, Premier Zhou was extremely attentive to the development and use of wild plant resources. The "State Council Instruction on the Collection and Use of China's Wild Plant Resources," which he personally signed, noted that "full use must be made of these resources as a major supplement to light industry raw materials." Given the encouragement of this instruction, all jurisdictions and all departments did a great deal of work. The Ministry of Commerce and the Academy of Sciences organized departments concerned to carry out the country's first survey of plant resources, which discovered more than 400 different species of wild oil-bearing plants. For various reasons, particularly the damage caused by 10 years of turmoil, no specialized study was continued to thoroughly clarify the distribution, amounts, composition, properties or markets for the country's wild oil-bearing plants, to say nothing of their full use. Now it is necessary to give attention to work in the several following realms:

First, summarization of experiences and doing a good job of scientific research. Acting on relevant recommendations, in 1978 the State Scientific and Technological Commission and the Chinese Academy of Sciences made development and use of the country's wild oil-bearing plants a part of the national 1978-1985 science plan. However, for lack of specific measures

and coordination with those concerned, this plan has yet to be fully implemented. It has to be made a part of the national plan, and units concerned have to be organized to do a specialized and comprehensive survey of varieties, distribution, and reserves of wild oil-bearing plants to provide a scientific basis for production and use. Right now special emphasis should go to watching the promotion to use of the results of research on major projects in major producing areas, and to solving a series of problems in production, use, introduction, and farming.

Second is reform of management methods with institution of specialized administration. There are many varieties of wild oil-bearing plants, the fatty acid content and properties of which differ. The slightest bit of mingling can impair quality benefits. Therefore, a centralized management method has to be instituted for the supply, production, and marketing of wild oil-bearing plants. In major production areas, in particular, it is necessary to begin the training of specialized personnel in a combination of management and scientific research, and to set up management organizations of different sizes to take firm hold of specimens, products, quality, prices, and markets.

Third is readjustment of commodity categories and the opening of production and marketing channels. With the development of science and technology, benefits from certain wild oil-bearing crops are greater than those of domesticated oil-bearing crops. Nevertheless, management categories continue to be for third category commodities. Sources of supply are extremely inconsistent, and production and marketing channels are not open. Industries do not dare use raw materials whose sources of supply are inconsistent, and businesses do not want to accept commodities for which no normal marketing channels exist. This seriously impairs the development and use of wild oil-bearing crops. Therefore, wild oil-bearing crops with important uses should be designated plan commodities with centralized procurement and centralized marketing or assigned quotas or fixed procurement quotas instituted to stabilize sources of supply and flow channels to create conditions for development and use.

Fourth, application of laws of value with implementation of support policies. Inasmuch as wild oil-bearing crops are widely scattered and are not easy to gather, it is necessary, first of all, to resolve the conflict between low purchase prices and the high value of daily labor so as to arouse the enthusiasm of the masses to collect them and offer them for sale. In addition to strengthening management and administration, and the use of scientific techniques to improve utilization value, within a certain period of time support price supports should be given in the same way they are given for the support of domesticated grains and oils. For varieties of special use, a fairly high subsidy standard should be applied. Those that are able to take the place of imported oils or tung oil should be purchased at a price that is the same as the imported price or the tung oil price. For varieties for which marketing is difficult within a certain period of time but for which there are developmental prospects, taxes should be reduced or exempted in order to expand procurement and sales and to stabilize transactions.

Fifth is combining the afforestation of the motherland with a change from wild growth to domesticated growth. The State Council directive on the collection and use of China's wild plant resources pointed out that "In

wilderness areas in which wild plants grow well, their economic value being greater than what would be derived from clearing of the land to grow grain, artificial culturing of wild plants should be done to make these places into major bases for the growing of wild plants." Acting under guidance of this directive, some regions in South China have introduced the planting of large amounts of cubeb litsea trees and lemongrass as well as other economic plants, which have yielded very good economic benefits. In future they will adapt general methods to local situations for the introduction of wild oil-bearing plants as a major part of economic diversification. This is being done simultaneous with afforestation and the growing of grass to make the motherland green. Many of the countries xylophytic and herbaceous oil-bearing plants are drought resistant and tolerant of windblown sand. They make fine varieties for afforestation and the growing of grass. All that is needed is planned organization and benefits can be gathered in making the motherland green, in conserving water and soil, and increasing oil-bearing plants.

We believe that only by taking a firm grip on these tasks can the country's advantages in wild oil-bearing plants be brought fully into play, and perform an active role in advancing the building of the four modernizations.

9432

CSO: 4007/542

MEASURES TO ENSURE DOUBLE CROP LATE RICE HARVEST STRESSED

Brijing ZHONGGUO NOMGMIN BAO in Chinese 5 Aug 82 p 1

[Article by Commentator: "Early and Painstaking Care to Win a Bumper Double Crop Late Rice Harvest"]

[Text] South China has now entered the hectic stage of the "double rush" [rush to harvest and rush to replant]. In order to win a bumper harvest for the year as a whole, while assuring bumper output and bumper earnings from the early rice crop, and while fulfilling transplanting plans for the double season late rice, all jurisdictions should not miss the opportunity to do a good job of field care to win new breakthroughs in output of double crop late rice.

Double crop late rice is grown on one-third of the country's rice growing area and occupies an important position in total grain production. However, for many years outputs have been low and inconsistent, and during the last 2 years, as a result of damage done by the cold dew wind, yields have continued to fall greatly to the very great detriment of increases in grain production. This year a bumper early rice harvest was reaped, and in most places, the grain to be harvested in the fall is growing nicely. The double crop late rice will play a decisive role in whether a bumper grain harvest for the year as a whole can be achieved and this year's increased production quotas fulfilled. This requires that all jurisdictions summarize the lessons of experience, using them as a basis for focusing on the weak links in late rice crop production and taking virorous action to tap potential for increased yields.

Following a period of effort with the implementation of planting plans for this year's double crop late rice, the growing of sturdy seedlings, the reading of materials, and the transplanting of seedlings, it seems that the situation is good overall, and that a definite basis exists for harvesting a bumper crop. However, it has to be realized that as a result of a shortage of seedlings in some places for the replanting of a large area, and as a result of delays in harvesting the early rice crop occasioned by overcast and rainy weather, flooding, and waterlogging, transplanting of the late rice crop was somewhat delayed. This has not only increased difficulties in transplanting the late rice crop, but places even higher requirements on field care from now on. Leaders at all levels should make complete appraisals

and conscientiously analyze the current transplanting situation, adopt measures to hasten it, and rush "seedlings before autumn begins" [around 7 August] so that transplanting will be substantially completed by that time, and so that the number of seedlings transplanted after that time will be reduced to the minimum, thereby reducing the number of "foot dragging fields" for a balanced increase in yields.

Planting is the foundation and care is the key. For double crop late rice it is only slightly more than 3 months from transplanting to harvesting. The growing season is short; room for maneuver is slight; and natural disasters are numerous. One slip in care and the entire crop may suffer. This positively cannot be taken lightly. Conceptually and organizationally there must be adherence to unflagging efforts, guarding against and overcoming an apathetic attitude of "once transplanting has been finished, washing the feet and staying out of the fields," leading the masses in carrying forward a spirit of protracted war, promptly turning to field care, achieving care even while transplanting is being done, taking care after transplanting is finished, closing every link, giving continuous care, promoting early development and steady growth, avoiding the "cold dew wind," and achieving full heading in safety to create good conditions for consistently high yields.

Over the years a set of fairly complete scientific methods have been figured out and quite a few experiences accumulated everywhere for field care in double crop late rice production. The job now is to adapt general methods to local situations for widespread promotion of these methods and experiences in light of the characteristics of this year's double crop late rice production so that the broad masses of peasants will apply them and master them. Emphasis must be placed on doing things in their proper season and combating disasters in accordance with growth characteristics and weather conditions at different times for double crop late rice, devoting strenuous efforts to the major links of sensible follow-up fertilization, scientific use of water, prompt weeding, and prevention of diseases and insect pests.

After the hectic "double rush" season is over, the key to whether it is possible to maintain unflagging field care of double crop late rice lies in genuine strengthening of leadership. Only when leadership does not slacken efforts will the masses not take it easy. Leaders and cadres involved in the "double rush," should keep sufficient energy to continue to organize field care work, to coordinate and solve new problems in responsibility systems, to properly deploy workforces, and to assure that nothing is overlooked in farm work. Agricultural departments should do a good job of providing technical guidance for field care and in providing other services, and make full use of the role of specialized plant protection units and plant protection companies. In short, every aspect has to be fully orchestrated and matters taken firmly in hand during the 3 months of July, August, and September to win a bumper harvest from the double crop late rice.

UPDATING OF HYBRID RICE PRODUCTION FIGURES PROVIDED

Beijing ZHONGGUO NONGMIN BAO in Chinese 8 Aug 82 p 1

[Article: "China Promotes Wide Area Growing of Hybrid Rice. Spread Over 330 Million Mu In 5 Years For Yield Increases of 100 Jin Per Mu"]

[Text] The correspondent obtained the following from the national conference on exchanges of experiences on hybrid rice breeding and seed production recently held in Beijing. Since the spread over wide areas of hybrid rice in China, development has been very fast, benefits from increased yields have been high, and great achievements have been made. Between 1976 and 1981, hybrid rice spread over an accumulated 330 million mu area for overall increases in yields of about 100 jin per mu. As a result of the popularization of hybrid rice, within a single year many places changed their low yield situation. When hybrid rice has been used for late rice crop planting, in particular, results in increased yields have been most remarkable. In 1978 Zhejiang Province promoted hybrid rice for the late rice crop, and for that year late rice crop yields for the province as a whole amounted to 575 jin per mu. After Sichuan Province vigorously promoted hybrid rice, the province sustained increased rice yields for 5 years. Hybrid rice has also gradually developed and output has steadily climbed in Hunan, Jiangxi, Jiangsu, and Guangdong provinces. The situation everywhere shows that promotion of hybrid rice is a major measure for advancing the country's grain production.

This conference summarized experiences and made suggestions on problems in purification and rejuvenation of the three lines of parent pairs used in hybrid rice, and in the mongrelization and regression of seeds in seed propagation and seed production work.

9432

CSO: 4007/556

EFFORTS TO SORT OUT MOUNTAINLAND RIGHTS, RESPONSIBILITIES REPORTED

Fuzhou FUJIAN RIBAO in Chinese 9 Jul 82 p 1

[Article: "Fujian Province Actively Carries out 'Three Fixed' Work in Forestry. Fixing of Mountain Forest Rights Puts People's Minds at Ease So They Have Confidence in Developing Forestry; More Than 4,900 Units Inspected and Accepted, and 6.74 Million Mu of Privately Retained Mountains Demarcated For 860,000 Peasant Households."

[Text] Fujian Province has fixed mountain rights and forest rights, fixed the demarcation of privately retained mountains, and fixed forestry production responsibility system in the active launching of "three fixed" work for forestry. Statistics as of the end of May 1982 show that 10,800 production brigades, state-owned forest farms and lumbering farms in the province have begun "three fixed" work in forestry, and 9,040 units (83.4 percent of units that have begun this work) have completed field work in fixing rights for mountains and forests. More than 5,700 production brigades have fixed the demarcation of 6.73 million mu of privately retained mountains for more than 860,000 peasant households, each household getting an average 7.8 mu. More than 6,800 production brigades have preliminarily established forestry production responsibility systems for more than 51 million mu of mountain forests. "Three fixed" work has been substantially completed, and more than 4,900 units have been inspected and accepted. This amounts to 45.5 percent of units who started it.

"Fixing of mountain forest rights puts people's minds at ease and gives them confidence about development of forestry." The "three fixed" in forestry has further stirred mass enthusiasm for afforestation. Last winter and this spring, in addition to the afforestation done by communes and brigades collectively, various forms of afforestation such as afforestation by commune members working in partnership, individual contracting of afforestation, and afforestation of privately held mountains has taken place. Quite a large number of "standout" households who have been afforested 100 mu with 10,000 trees have appeared. This year 2.64 million mu have been afforested in the province including commune member afforestation of 460,000 mu of privately retained mountains. Qiancen Production Brigade in Huaan Country demarcated more than 1,600 mu of privately retained mountains for commune members, and this year more than 90 percent of them planted trees. This spring the production brigade planted a total of more than 210,000 China firs, each household

planting an average of 839 trees. This year Guyang Production Brigade in Jinsha Commune, Minqing County afforested 940 mu including 790 mu of commune member privately retained mountains. Eleven commune member households planted 10,000 trees.

Communes and brigades that had initially established forestry production responsibility systems universally strengthened work in protecting existing mountain forests. They effectively halted reckless felling and denudation. According to statistics from Jianyang, Sanming, Jinjiang, and Putian prefectures, as a result of the checking up done on reckless felling and denudation, an additional more than 35,000 cubic meters of timber was found, and supplemental taxes and fines amounted to more than 750,000 yuan.

In the course of the "three fixeds" work in forestry, large numbers of arguments about forest rights were mediated and handled to promote stability and unity. In Shunchang County, 16 state-owned forest farms and lumbering farms have quarreled for years with communes about resources, about lumbering zones, and about mountainlands. They had many conflicts. As a result of the "three fixeds" in forestry, which fixed operating areas for state enterprises and collectives, the forestry area now administered by state-owned units has increased by 60,000 mu over what it had been. In accordance with policy regulations, when state-owned forestry units operate commune and brigade mountainlands, they must pay communes and brigades from 10 to 30 percent in forest fees. This has both consolidated state-owned units and strengthened farm and commune unity, and has promoted development of forestry production. In the course of the "three fixeds" in forestry in the province, more than 8,300 disputes about mountain forests were mediated or handled. This was 60 percent of the total number of arguments. In Jianyang Prefecture, as a result of efforts at verifying and readjusting mountains belonging to one production unit but enclosed within the boundaries of another, 80 percent of mountain forests belonging to one production unit but enclosed within the boundaries of another were readjusted. This both helped administration and management of the mountain forests, and can reduce and avoid future quarrels.

However, the "three fixeds" work in forestry developed unequally in different parts of the province. In a small number of counties and municipalities, leaders lacked understanding. They operated pilot projects without any follow up. Some simply issued a call, but did not specifically organize leadership. Work progressed slowly and many problems existed. Some did nothing but fix rights; they did not fix the demarcation of privately retained mountains or set up forestry production responsibility systems. In view of these problems, all jurisdictions are now in process of taking action, determined to work ceaselessly and unremittingly, to do well from start to finish, and to both complete and do a good job of the work of the "three fixeds" throughout the province.

9432

CSO: 4007/544

HARVEST SEASON FIRE PREVENTION WORK EMPHASIZED

Lanzhou GANSU RIBAO in Chinese 10 Jul 82 p 1

[Article: "Good Job of Fire Prevention During Wheat Harvest Season. Provincial Public Security Department Issues Notice"]

[Text] The Provincial Public Security Department recently issued a notice calling upon all jurisdictions to adopt measures for doing a good job in fire prevention during the wheat harvest season.

The notice noted that during the wheat harvest season in the province last year all jurisdictions did a great amount of work, yet fire disasters continued very severe. During the wheat harvest season, 113 fire disasters occurred. Economic losses ran to 200,000 yuan, and more than 280,000 jin of grain was destroyed.

The notice said that the various forms that had come into being in various jurisdictions last year whereby "brigades fought fires in brigade threshing grounds," "households (or units) fought fires in brigade threshing grounds," or "households fought fires in household threshing grounds" had caused numerous new problems and new situations for fire prevention and management work. All jurisdictions should formulate or revise wheat threshing ground fire prevention measures in light of actual conditions this year at threshing grounds following investigation and study. They should also launch widespread and deepgoing propaganda and education in fire fighting, stir the masses to establish fire prevention rules and regulations, and institute fire prevention responsibility systems that assign responsibility to individuals. Night patrols to protect threshing grounds should be organized, a good job done of preparations to put out fires, equipment to put out fires made ready, and full use made of the role of order preservation associations and volunteer fire fighting units. Attention should be given to models and to trends. When fire disasters occur, investigation of cause should be done at once, with perpetrators being severely dealt with. Arsonists are to be resolutely attacked.

Emphasis on Prevention

Throughout the province the summer grain crop is ripening in one place after another, being harvested, and brought to the threshing grounds. A conscientious job of fire prevention safety so that the grain already in hand will

escape damage and every grain of it go into storage relates directly to the personal welfare of the state, the collective and the masses of commune members. It is a matter of importance during the summer harvest season. All jurisdictions are to devote a high degree of serious attention to it, genuinely take firm hold of it and handle it well.

Summer harvest season fire prevention should emphasize prevention. A common saying goes: Prepare a house for a rainy day; preparation averts peril. A solid job of preparations for the prevention of fire has to be done in the realms of mental understanding, organizational measures, and material preparations. There have to be regular inspections and the plugging of gaps to snuff out accidents before they happen. If good prevention work is done, disastrous fires will not easily occur, and should they occur by chance, it will be possible to extinguish them at once before they lead to great losses.

When it comes to fire prevention work, most damaging of all is a supercilious and completely unconcerned paralyzed mentality, and a psychology of trusting to luck. The outbreak of disastrous fires that cause great damage may be attributed to this. Therefore, all jurisdictions should indoctrinate cadres and masses in full understanding of the danger of fire disasters and the importance of fire prevention so that every home and household is aware and women and children know to maintain a high degree of vigilance against fire disasters. In addition, it is necessary to have a strict system of rules and regulations that everyone is to obey without exception.

9432

CSO: 4007/512

BRIEFS

SUMMER GRAIN PROSPECTS--Gansu Province's summer harvest is at full tide. The situation as reported from all areas shows that except for Dingxi Prefecture in Central Gansu and for the suburbs of Lanzhou, which have had reduced yields as a result of disasters, the other 10 prefectures, zhous, and municipalities will have higher outputs than last year, and in some counties summer grain production will reach an all-time high. On the basis of surveys, the Provincial Statistical Bureau has calculated a possible summer grain output totaling 5.8 billion jin, predicting an almost 10 percent increase over last year. [Text] [Beijing RENMIN RIBAO in Chinese 26 Jul 82 p 1] 9432

CSO: 4007/512

EXHORTATION ISSUED FOR CONTINUED CARE OF THRIVING CROPS

Shijiazhuang HEBEI RIBAO in Chinese 25 Jul 82 p 1

[Article: "Go All Out to Conquer Disasters and Win a Bumper Fall Harvest"]

[Text] The arrival of summer marks the time of vigorous growth of the crops to be harvested in the fall. Full arousal of the masses for intensification of care in good time to triumph over any natural disasters that might occur in order to win a bumper autumn harvest is a task of primary urgency in rural villages for the next 3 months.

Accompanying the institution of various policies in rural villages this year, and particularly with the stabilization and improvement of various forms of responsibility systems that have brought into full play enthusiasm for collective centralized management and self-determination for the workers, the enthusiasm for socialism of the broad masses of cadres and people in Hebei Province has had an unprecedented upsurge. In addition, with the arrival of summer the rains came fairly early and the amount of rainfall was greater than for the same period last year, so the fall crops were planted on time and planted to the full, and now everything is growing rather well. The broad masses of cadres and people throughout the province should rouse their spirits, rally themselves, and work ceaselessly and unremittingly for new breakthroughs in autumn production this year to win all around bumper harvests from grain, cotton, and oil-bearing crops.

Autumn is the main season for agriculture in Hebei Province. Autumn grain output accounts for more than 70 percent of output for the year as a whole, and virtually all economic crops are harvested in autumn. Only by doing a good job of autumn production can agricultural production plans for the year as a whole be realized, only then can provisions for the livelihoods of urban and rural people be guaranteed, and only then can a greater contribution be made to the country for further development of a fine situation of unity and stability. Party and government leaders at all levels, as well as the broad masses of cadres and people, must fully realize the important economic significance and political significance of winning a bumper autumn harvest. In winning a bumper autumn harvest, one problem that merits serious attention right now is guarding against and overcoming feelings of blind optimism. The broad masses of cadres and people have to be made to realize clearheadedly that the present good growth of autumn crops is only a food foundation for

harvesting a bumper crop and that 2 or 3 months remain until harvest time. If field care is not maintained, a good situation may turn into a bad one. This is also the season for numerous disasters; flooding, waterlogging and drought, as well as insect pests, hailstorms, and early frost may all occur. Anything that is not attended to may result in damage to output. So one cannot be the slightest bit smug or let down one's guard. It is necessary to do a good job of mental preparation, and material and technical preparations to meet various kinds of disasters. Reports from various places tell of great shortages of chemical fertilizer and pesticide equipment in some places. Unless ways can be found to solve these problems quickly, opportunities will be lost and reinforcements that the crops require will not be there. It is necessary to realize, as well, that though the province as a whole had a fairly good summer harvest, as a result of serious disasters original plans for increased output were not realized, and this compounds the task of increasing output from the autumn harvest. That is to say not only is it necessary to fulfill original plans for an increased autumn harvest, but many places must strive for even greater increases in autumn production, the autumn harvest making up for the summer harvest shortfalls. All this demonstrates fully that the task of reaping a bumper autumn harvest is an extremely arduous one that requires attention to guarding against and overcoming fears of difficulties. Places in which output fell substantially as a result of serious hailstorms should particularly appreciate the advantageous conditions that exist in the face of adversities, rally their spirits, build up their confidence, and use every available means to recoup the losses occasioned by the disasters.

Reaping a bumper autumn harvest entails firm attention to the implementation of various measures to increase yields. In terms of the province as a whole, this means, first of all, firm establishment of a mentality of combat against disasters to win a bumper harvest, to triumph over the floods and waterlogging, the choking drought, the hailstorms, and the insect pests that have occurred or may occur. Herein lies the key to whether a bumper harvest may be won. Second is intensification of crop care, particularly additional fertilization given at the right times in the right amounts and using scientific methods. Insect pests have to be eliminated promptly and hoeing done to get rid of weeds. For cotton and corn, the all important autumn crops, care must be emphasized. Third is the need to take a firm grip on both grain and cotton, and to give attention as well to oil-bearing crops and other economic diversification, attention being given to timely planting of sufficient amounts of autumn vegetables in an effort to realize an all-around increase in output and earnings. Fourth is emphasis on medium yield areas where the potential for increased yields is great.

Rural leaders at all levels should place their main energies on the winning of a bumper autumn harvest and genuinely strengthen leadership. They should promptly study and solve problems in autumn production, particularly in the improvement of responsibility systems and the restructuring of grassroots level teams. They should persevere in attention to and full arousal of positive factors in all regards to do a good job of autumn production. They should take the lead in organizing large groups of cadres to go into the frontlines to assume work responsibility for specific tracts in the

institution of a personal responsibility system. Scientific and technical cadres at all levels should go to the grassroots to help improve work and gain experience that can be used to improve work. They should institute responsibility systems that link output to techniques, train grassroots technical personnel, and readjust crop patterns at places so that full use is made of the role of demonstrations and scientific techniques for autumn field care to reach each and every one of the myriad households, and so that the desires of the masses to learn science and use science are satisfied.

Support from all trades and industries plays an extremely important role in winning a bumper autumn harvest. Many of the difficulties and needs currently being heard from the masses require solution by agricultural, industrial, commercial, supply and marketing, banking, and material departments. For example, the chemical fertilizers, pesticides, and small devices for the eradication of insect pests so urgently needed for autumn field care, the machines, electric power, fuels and other materials needed to combat floods and eliminate waterlogging, problems of some hardship communes, brigades, and commune members of a shortage of funds, all require the support of various trades and industries through attention to production, allocation, or supply. Consequently, all trades and industries are to give serious attention to support in winning a bumper autumn harvest as a matter of primary importance. In view of the new situation following responsibility systems, they should give prompt attention to technical guidance, make efforts to do a good job of the supply of materials such as chemical fertilizers, pesticides, pesticide machines, farm implements, electric power, and fuels, do a good job of maintenance and repair of farm equipment, and bend every effort to accommodate the masses, to insure that requirements for autumn field care and combat against disaster are met, and make a greater contribution to the building of the four modernizations.

9432

CSO: 4007/557

EFFORTS FOCUSED ON KEY CROPS, GUARDING AGAINST DISASTERS

Shijiazhuang HEBEI RIBAO in Chinese 21 Jul 82 p 1

[Article: "Give Attention to Key Crop and Give Attention to Prevention of Drought and Waterlogging. Leaders at All Levels in Langfang Prefecture Go Into the Frontline of Agriculture"]

[Text] Leaders at all levels in Langfang Prefecture have gone down to the grassroots to investigate and study, to do a solid job of solving problems encountered in winning a bumper autumn harvest, to lead mass unification for struggle, to do hard work for the three months of July, August, and September, and to use every available means to win a bumper autumn harvest, resolved to recoup summer losses and realize increased production plans for the year as a whole.

As a result of a severe drought this spring such has rarely ever been encountered, Langfang's summer grain output was almost 20 percent less than last year. Immediately following the summer harvest, the Langfang Prefecture CCP Committee and government administrative offices analyzed both the favorable and unfavorable factors in winning a bumper autumn harvest. They realized the need for genuine strengthening of leadership and great exertions to bring plans for increased output to fruition. Thirteen members of standing committees and deputy assistant directors of the Prefecture CCP Committee and government administrative offices, more than 130 leadership cadres promptly went to the grassroots to investigate and study, and to discuss with the masses in common overall plans for winning a bumper fall harvest. Prefecture CCP Committee First Secretary Liu Yuansheng [0491 0955 3932] discovered in Guan County that such sandy wasteland in the county could be used. He thereupon discussed with county cadres and masses the dividing up of the sandy wasteland among commune members for farming, the commune asking little or nothing as compensation. The county then transferred more than 30,000 mu of sandy wasteland. At the meeting of County CCP Committee secretaries conference convened in June, the Prefecture CCP Committee further proposed the launching throughout the prefecture of a campaign for "full farming of fields." By dividing among commune members for farming the more than 300,000 mu of sandy wasteland, idle land, and abandoned land in the prefecture, grain output could be increased by 60 million jin. In the course of an investigation at Beiwang Commune in Langfang City, Comrade Peng Qingbin [1756 1987 1755], Prefecture CCP Committee deputy secretary, discovered that

the commune centrally purchased chemical fertilizer for commune members, centrally prepared pesticides, and helped commune members sink wells thereby solving difficulties for commune members that were in urgent need of solution. He summarized this experience and recommended that not only should production brigade grassroots governments exercise two functional roles, but departments at the commune, county, and prefecture levels should fully exercise their required functional roles as well to help commune members overcome difficulties. In the course of looking into the chemical fertilizer, phosphate fertilizer, and pesticides situations, comrades in charge at the Prefecture CCP Committee learned that during recent years some enterprises had emphasized attention to economic benefits, but their support to agricultural ideas had been weak. In view of this situation, the Prefecture CCP Committee emphasized that each enterprise was to do a good job of supporting agricultural work even while increasing economic benefits, and that they should readjust their methods of purchasing and marketing chemical fertilizer changing from marketing by enterprises themselves to business having "monopoly selling rights", the state temporarily shouldering losses with benefits going to the peasants. After this idea was made clear, a new situation came about in the production of chemical fertilizer, phosphate fertilizer, and the supply of other means of agricultural production.

In order to guarantee a bumper autumn harvest, this prefecture made a special point of taking a firm grip on two key measures. One was attention to key crops. Corn is a staple crop of the prefecture accounting for more than two-thirds of autumn output. All jurisdictions took firm grip on corn production so that 2.5 million mu of spring corn and more than 1.4 million mu of intermediate crop corn would grow better than in previous years. Second was strict attention to prevention of drought and waterlogging. The Prefecture CCP Committee and government administrative leaders parcelled out responsibility for sections of the river, and the County CCP Committee and county government leaders divided up responsibility for dikes. The dikes along the Yongding He, the Daqing He, and the Ziya He have already been inspected, and work is currently urgently underway on 175 drainage projects throughout the prefecture. Work will be finished before the arrival of the flood season. While working to prevent waterlogging, some communes and brigades that had had inadequate rainfall promptly carried out rush watering to replenish soil moisture.

As a result of leaders at all levels having gone down to the grass roots and having taken vigorous action, Langfang Prefecture's summer production has progressed rapidly and quality is good. As of 7 July, the 2.24 million mu that had been sown in spring had been hoed twice. This is 780,000 mu more than during the same period last year. Final thinning of late sown crops has been done on 1.1 million mu, 900,000 mu more than during the same period last year, and more than 2 million cubic meters of manure has been accumulated, 140,000 cubic meters more than last year.

9432

CSO: 4007/556

FURTHER EXTENSION OF RESPONSIBILITY SYSTEMS REPORTED

Shijiazhuang HEBEI RIBAO in Chinese 28 Jul 82 p 2

[Article by Shijiazhuang Prefecture CCP Committee Office and Investigation Team, Department of Agriculture and Industry] "Responsibility System Linking Remuneration to Wheat Output Possesses Powerful Vitality"]

[Excerpts] Editor's Note: The tremendous superiority and powerful vitality that various different forms of agriculture production responsibility systems demonstrate toward the development of agricultural production is already an incontrovertible fact. However, what is the need to practice responsibility systems linking remunerations to wheat output in high wheat producing areas? It seems people still have different perceptions of this. This survey written by the Shijiazhuang Prefecture CCP Committee Office and the Department of Agriculture and Industry provides a clear answer to this question that merits reading by everybody.

At the present time, the wheat producing regions of Hebei Province are beginning work preparatory to planting wheat. It is hoped that leaders at all levels will make the summarization, promotion, and perfection of responsibility systems linking wheat output to remuneration a major part of these preparations, that they will intensify ideological indoctrination of grassroots cadres, and that they will continue to emancipate thinking so that Hebei Province's system of responsibility linking remuneration to wheat output will be steadily perfected and improved to lay a foundation for winning a bumper wheat harvest next year.

This year Shijiazhuang Prefecture has promoted a production responsibility system linking remuneration to wheat output over a wide area. Production teams practicing the linking of remuneration to production account for more than 70 percent of the total number in the prefecture. The 4.4 million mu area on which remuneration is linked to production accounts for 74 percent

of the wheat growing area. What role do production responsibility systems linking wheat output to remuneration play in wheat production? Last year when crop prospects were good, when they were instituted in small areas throughout the prefecture, output increased. This year, with numerous disasters, when practiced over a large area, will they be able to increase output? Recently we conducted a survey, and practice has provided an affirmative answer.

This year wheat production in Shijiazhuang Prefecture has been beset with many calamities and numerous difficulties. First was low temperatures in early winter; second was protracted drought; third was high winds; fourth was the sudden outbreak of large numbers of wheat aphids; fifth was early arrival of hot dry winds with many occurrences; and sixth was hailstones. In short, the number and frequency of disasters were such as have not been seen in many years. However, as a result of the indomitable struggle of the people throughout the prefecture, a total of more than 2.2 billion jin of wheat was still harvested, a good harvest that was only 0.70 percent less than last year.

In this situation of numerous disasters and reduced yields, places practicing responsibility systems linking remuneration to wheat output demonstrated the outstanding superiority of the system no matter whether the size of their workforces was great or small. From the 10,243 production brigades that practiced the linking of output to remuneration before planting the wheat, results were outstanding; from the 4,600 production teams that had practiced the linking of output to remuneration for 2 years, results were even more outstanding. For those faces with the same disasters, under the same conditions those linking output to remuneration sustained a smaller decrease in output than those not practicing the linking of output to remuneration. Those who practiced the linkage early and well had increased yields, some of them tremendously increased yields. In the Dasonglou Production Brigade in Lianxing Commune, Huolu County, for example, where soil and water conservancy conditions are rather good, the continued practice this year of the contracting of jobs to be done in a certain period of time brought wheat yields of 500 jin per mu, 127 jin less than last year for a 20 percent drop. Meanwhile in the neighboring village, Xiaosonglou Production Brigade, which is a hilly region where conditions are not as good but where output quotas have been assigned to individual able-bodied laborers for 2 consecutive years, wheat yields amounted to 494 jin per mu, the same as last year. Balizhuang Production Brigade in Shulu County instituted well in advance of wheat planting the assignment of fixed output quotas to individual able-bodied laborers during the second year in which this system was used. Its wheat yields were 635 jin per mu, 183 jin more than last year and 135 jin higher than the all-time high year of 1979, at Songcao Commune in Yuanshi County, seven production brigades practiced the system of large scale assignment of responsibilities, and as a result of good handling of the relationship between centralization and contracting, every brigade had increased yields. Total output for the commune as a whole was 1.05 million jin higher than last year. In Shenze County, brigades practicing the linking of remuneration to output numbered 96.7 percent the total number of brigades in the county, and total output for the county as a whole increased by more than 10 percent.

Seven out of 10 communes had increased output. Eighty-four of 123 production brigades had increased output. Of the 630 production brigades in Yuanshi County that had increased outputs, 625 practiced the linking of remuneration to output. Only five of the 58 production brigades not practicing the linking of remuneration to output had increased output. Last year wheat yields at Xianzhuang Commune in Luancheng County were 595 jin per mu. This year, when 49 of the 51 production brigades practiced the linking of remuneration to output, yields increased to 616 jin per mu, high yields becoming even higher. Throughout the prefecture many field plots had wheat yields of 1,000 jin per mu, and many households produced 10,000 jin of wheat. Survey has shown that in a year of great disasters, the linking of remuneration to wheat output stood the test and played a great role.

As a result of the survey, we learned three things as follows:

1. The linking of remuneration to wheat output holds great prospects. For many brigades, particularly high wheat yield brigades, the linking of remuneration to wheat output was done at the behest of higher authority; methods were crude; and results were unremarkable. As a result, people felt that when the "basis for high yields was good and potential small, linking of remuneration to output did not pay." In some case, remuneration was linked to output only after the wheat had been planted. There was little individual management of work procedures and results were not striking. People felt even more that "fall grain comes from good care but for wheat it is the planting that counts," and "seventy percent of the wheat harvest has to do with sprouting; there is no need for linking remuneration to expected output." Practice has shown that the linking of remuneration to wheat output is a strongly adaptable system. Low yield brigades can get high yields, and high yield brigades can get higher yields. So long as the link is formed early and well, the potential for increased yields can be tapped and retapped, and it pays very well. Furthermore, whenever collectives centralize only plowing, planting, watering, supply of chemical fertilizer and pesticides, and such work procedures, leaving to individual households the management of everything else, results are good (Naturally some work procedures require brigade assistance, as, for example harvesting and hauling of the crop, and threshing it). In some brigades in which there was little individual management of work procedures that had poor results, the main problems lay in having linked remuneration to output late and in improper handling of the relationship between centralization and contracting. Individuals did not work hard, which was not the fault of the responsibility system linking remuneration to output per se.
2. It is not difficult for individual households to farm wheat by themselves and this method helps all around performance of the "three summer jobs" [planting, harvesting, and field care]. "The linking of remuneration to wheat output is all very well and good, but there is no way to do the threshing." This year's experience further demolished this idea. So long as organizational leadership is strengthened, not only can individual household threshing be done, but three can be "one fast and two ahead of schedules," namely: fast threshing, and summer planting and summer care ahead of schedule. Because of the poor organization in some brigades threshing by

individual households takes a whole day or a half day, but when the grain is apportioned as soon as it has been threshed, the time required to clear the threshing ground is shortened and it becomes available for use in summer planting and summer care, so when all is said and done all of the "three summer jobs" are hastened along.

3. The linking of remuneration to wheat output has set the stage for the linking of remuneration to output of autumn crops. Summer has given impetus to fall for a bumper harvest for the year as a whole. The linking of remuneration to wheat output, individual farming, and the honoring of commitments has put people's minds at ease and has given them confidence to practice the linking of remuneration to output for fall crops. It has also changed the former situation of "linkage in fall but no linkage in summer." People realized that wheat and corn are akin. When dibbling corn into wheat fields they have to guard against trampling the wheat, and when they harvested the wheat, they have to guard against trampling the corn. During fall harvest there should be no delay in clearing fields to plant wheat. Thus, what worked in summer also worked in fall. What worked this year will also work next year. This is a key measure for all around sustained development of agricultural production.

9432

CSO: 4007/554

RURAL ECONOMIC DIVERSIFICATION SPURRED

Shijiazhuang HEBEI RIBAO in Chinese 22 Jul 82 p 1

[Article: "Tangshan Prefecture Rural Diversification Flourishes, Leadership Organizations at All Levels Perfected; All Trades and Industries Coordinate Support"]

[Text] During this year a new situation of flourishing development has taken place in rural economic diversification in Tangshan Prefecture. As of the end of May, prefecture gross earnings from economic diversification reached 277.13 million yuan, and profits reached 176.78 million yuan, a more than 10 percent increase over the same period last year. Substantial development occurred in the farming, breeding, and processing industries.

Development of rural economic diversification in Tangshan Prefecture this year was characterized in four ways as follows: One was perfection of leadership organizations, a clearcut guiding mentality, and practicality in the way work was managed. The prefecture, municipalities, and counties established economic diversification leadership teams and offices, which formed a battle front designated responsible for economic diversification. All levels formulated development plans, and the prefecture designated 10 key areas including the planting of trees for afforestation, dry and fresh fruits, silkworm cocoons, hog raising, chicken raising, rabbit raising, marten raising, lumber, light industrial foodstuffs, and freshwater breeding. Fourteen farming and breeding bases were under direct control of the prefecture. Thirty-six key communes for farming and breeding were directly controlled by municipalities and counties. Second, pertinent party policies were rather well implemented. Now 61 percent of all production brigades in the prefecture engaged in forest and fruit production practice responsibility systems. Commune and brigade enterprises practicing responsibility systems number 87 percent. Fishing industry brigades practicing responsibility systems, and particularly as a result of specialized contracting, commune and brigade enterprises have very quickly turned around a temporary decline in output. At the same time, they have vigorously supported commune member household sideline occupations. Third was the widespread application to the development of production of scientific techniques, economic effectiveness greatly increasing as a result. According to incomplete statistics, cadres and commune members who have received training in various aspects of economic diversification this year number more than 16,300, and they have played a

major role in economically diversified production. Four, individual departments have supported each other in economic diversification. During the year, the Prefecture Finance Bureau allocated 1.6 million yuan of local public funds as circulating capital for support of economic diversification. The Bank of Agriculture issued economic diversification loans amounting to 43.78 million yuan, a 20.94 million yuan increase over the same period last year. Foreign trade departments have disbursed \$500,000 in foreign exchange to import 1,000 tons of fish meal to support development of the marten raising and chicken raising industries. The supply and marketing system has sent 69 technical personnel to give special attention to fruit production in 131 production brigades, investing 200,000 yuan of support funds in this task.

9432

CSO: 4007/556

NEW EMPHASIS GIVEN USE OF MIXED LIVESTOCK FEEDS

Accelerated Development

Harbin HEILONGJIANG RIBAO in Chinese 4 Jul 82, p 11

[Text] According to most recent statistics, the 36,000 tons of livestock feed produced during the first 5 months of this year by the province's 15 medium and small blended and mixed livestock feed processing plants have been sent in a steady stream to livestock and poultry raising farms and to households specialized in the raising of livestock everywhere in the province to provide livestock and poultry with "food" containing diverse nutrients.

During the past several years livestock feed departments in some places have begun with improvements in livestock feed processing equipment and active promotion of the use of combined livestock feeds in vigorous development of the livestock feed industry to play an active role in advancing development of the province's livestock industry. Now the cities and counties of Harbin, Qiqihaer, Mudanjiang, Jiamusi, Hegang, Shuangyashan, Yichun, Qitaihe, Shuangcheng, and Tailai have established 15 mixed and combined livestock feed processing plants of various kinds with an annual output capacity totaling 80,000 tons of livestock feed, which is 16 percent of the total amount of livestock supplied to livestock and poultry throughout the province.

Fulaerji livestock feed station in Qiqihaer renovated and improved its original livestock feed processing equipment, and in October 1981 built a mechanized production plant with a daily combined feed output of 32 tons. They went to livestock farms and to individual households specializing in the raising of livestock and poultry to investigate and understand needs. They developed Laying Hen No 4 blended feed and mixed hog feed prescriptions suited to the needs of poultry and hogs, which they actively produced and supplied to customer households causing the egg production rate to rise by 5 to 10 percent. The chickens' consumption of 8 jin per month of a single feed was cut to only 7.5 jin of blended feed for a 1/2 jin saving in the amount of feed formerly used to the delight of customer households who have increasingly turned to the buying of combined feed. The more than 1,400 tons of combined livestock feed that this plant produced between January and April this year has been completely sold.

The Shuangcheng County Livestock Feed Company has actively promoted use of combined feeds among the farflung customer households. Now more than 5,000 milk cows throughout the county are fed nothing but combined feed, and the milk production rate has increased 10 percent.

Advantages of Blended Feeds

Harbin HEILONGJIANG RIBAO in Chinese 4 Jul 82 p 1

[Text] Blended feeds are highly nutritious feeds blended from various raw materials to meet the nutritional needs of different livestock and poultry during different stages of their growth. They are selected energy feeds (corn, gaoliang, and millet), protein feeds (bean cake, fish meal, and miscellaneous crop residues), coarse green feeds (bran, and pulverized leaves, and grass), and suitable amounts of minerals (calcium, phosphorous, potash), vitamins (A,D,E, B₂, and B₁₂, niacin, and choline), amino acids (lysine, and methionine), plus antibiotics (penicillin and terramycin) as additives which are blended in machine processing into livestock and poultry feeds. Blended feeds are characterized as being finely pulverized, accurately blended, mixed evenly, and nutritionally complete.

It was formerly the practice in feeding livestock and poultry in the province to use a single variety feed. Though large amounts of grain and bean cake were used to feed livestock, the mineral, vitamin, and amino acid nutrients that poultry and livestock required were not adequately supplied. As a result the feeding cycle was long, the quantity of commodities small, grain consumption great, and the return from feed low. Under identical feeding conditions, because they meet livestock and poultry nutritional needs and have the proper amount of additives put in them, blended livestock feeds can hasten weight gain in livestock and poultry, producing more meat, eggs, and milk. They make possible a short production cycle for livestock and poultry, many commodities, small grain consumption and high return on feed. Were livestock and poultry raised everywhere in the province to be fed combined feeds, livestock and poultry output could be increased by more than 20 percent. Both livestock raising units and individuals could increase earnings, and the country could save 20 percent of its grain. This holds major significance for a change in livestock feed composition, for improving benefits from feeds, for promoting development of the livestock industry, and for increasing output while conserving grain.

'RIBAO' Commentary

Harbin HEILONGJIANG RIBAO in Chinese 4 Jul 82 p 1

[Text] The further development of the province's livestock industry has presented comrades engaged in the livestock feed industry a new problem, namely the need for vigorous development of the livestock feed industry and the use of scientific feeding methods to take the place of the former traditional and backward livestock and poultry feeding methods, the use of blended feeds to replace single feeds, shortening of the feeding cycle, lowering grain consumption, and improving economic effectiveness.

During the past several years the province's livestock feed industry has seen preliminary development; however, development has been a long way from being commensurate with present development of the livestock industry. The province's present capacity to produce blended livestock feeds accounts for only 12 percent of total livestock feed supply for the province as a whole. The province is one with rather bountiful resources, which annually has a large surplus of bran, miscellaneous crop residues, sugarbeet fibril tree leaves, grass, grit, and waste meat, blood, bones, hair, scrap fish, dregs from the manufacture of medical concoctions and such industrial and commercial leavings. These all make fine raw materials for the production of blended livestock feeds. However, formerly this large quantity of resources could not be used to the full, and some was simply wasted. Statistics show that during last year alone more than 700,000 tons of sugarbeet fibril were left in the province that were not used to make blended feeds. As a result, resources were both wasted and increase in economic effectiveness was impaired.

A major reason why the province's livestock and feed industry has developed slowly is that some comrades feel that "Heilongjiang has a lot of grain, so all that is needed is to rely on grain departments to allocate grain to develop the livestock industry." Some grain department comrades also believe that livestock feed work is not indispensable; all that is needed is a good job of grain procurement, storage, processing, transportation, and supply." Because of the existence of the various foregoing erroneous ideas, livestock feed work in many places is limited solely to how to strengthen management of livestock feed to supply a single kind of livestock feed. These comrades are unable to realize that only using the single kinds of livestock feed of the past to feed livestock and chickens is not appropriate for present day development of the livestock industry. If giving impetus to development of the province's livestock and poultry enterprises is intended, all levels of leadership units, particularly comrades engaged in grain work, will have to thoroughly do away with the old cant about livestock feed production and supply, and make full use of the province's advantages in resources. If the province's numerous bountiful resources can be fully used for development of the livestock feed industry for vigorous development of blended feeds composed of many kinds of nutrients, and scientific methods used to feed livestock and poultry, development of the livestock industry throughout the province, will inevitably be hastened, using a relatively small expenditure of livestock feed to provide the people's livelihood with more and better sources of commodities such as meat, eggs, and milk.

9432

CSO: 4007/519

MULTIPLE SUCCESSES REPORTED FROM FARM MECHANIZATION PILOT PROJECTS

Nanjing XINHUA RIBAO in Chinese 3 Aug 82 p 2

[Article: "Province Achieves Success in Farm Mechanization Pilot Project Work. Future Need to Adhere to Principles of Producing What is Urgently Needed, and Implements That Have Been Fully Tested, That Provide Marked Benefits and That the Masses Both Want and Are Able to Afford"]

[Text] Following more than 3 years of effort, Jiangsu Province's farm mechanization pilot projects have won outstanding results, providing both economic and technical benefits, and they have piled up experiences for development of the province's agricultural production and for exploration of roads to mechanization.

The province's pilot project work on farm mechanization began in 1979. As a result of efforts on the part of all concerned, the level of mechanization of individual pilot project units has been considerably improved. Today the total power used in agriculture at the province's nine pilot project units has increased by 60 percent over 1978. The amount of cultivated land per horsepower has dropped by 33.1 percent since 1978. The rate of overall farm mechanization has generally increased by from 15 to 20 percent as compared with 1978. Farm mechanization test pilot work has achieved marked success. One way has been an increase in the agricultural labor productivity rate. For the province as a whole, pilot project unit grain output per unit of labor increased by an average 30 percent in 1981 as compared with 1978. Secondly, it has promoted all around development of farming, sideline occupations, and industry. In 1981 total output value from farming, sideline occupations and industry had increased by 62 percent over 1979. Third, commune member living standards have remarkably improved. As a result of the development of farming, sideline occupations and industry in the wake of the pilot projects, commune member earnings distributions for pilot project communes and brigades in the province in 1981 were 55 percent higher than in 1978. Fourth, the contribution to the country has increased. In 1981 pilot project units sold a total of somewhat more than 440 million jin of commodity grain to the state, 16 percent more than in 1978.

During the past 3 years the province's pilot project units have introduced more than 20 kinds of farm implements from inside and outside China and from inside and outside the province. Using pilot project demonstrations, they

selectively promoted a sowing machine that furrows the soil and covers the seeds used in planting wheat, barley, and naked barley, a planter, a threshing machine, a ditch digging machine as several of more than 10 kinds of urgently needed machines produced. Economic benefits have been remarkable, and they have been rather well received by the masses. More than 50,000 of the soil furrowing and seed covering machines for wheat, barley, and naked barley have now been spread throughout the province. Under the impetus provided by the pilot projects, the machine sowing of wheat, barley, and naked barley in Xuzhou Prefecture increased from 2.7 percent in 1978 to more than 60 percent.

During the past 3 years the province's farm mechanization pilot project work has had achievements and experiences; it has also learned from problems. Examples include blind pursuit of speed and norms, going in for grandiose projects, indiscriminately seeking all around mechanization, plus lack of investigation and study in work, and insufficient tailored guidance, which has lead to some farm implements not being widely promoted in the province while some implements urgently needed by the masses have not received prompt and priority testing, demonstration and promotion. A situation of not very high technical or economic benefits has arisen. At the recently convened provincewide conference on agricultural mechanization pilot project work, comrades attending diligently summarized the lessons of experiences in these regards, and, in future work, they will strive to overcome them. Only through adherence to step by step and selective development of suitable farm implements, and only through adherence to the principle of producing what is urgently needed, and producing implements that have been fully tested, that provide marked benefits, and that the masses accept and are able to afford can good results for small investment be achieved. At the same time, full benefits must be derived from existing farm implements and a good job of mechanized service work done so that farm mechanization will meet the new situation following promotion of agricultural production systems of responsibility. Pilot project commune and brigade farm machinery station and team farm machine service work must gradually move in the direction of specialized division of labor in service, socialization of those provided service, diversification of the items to be serviced, and businesslike administration and management.

9432

CSO: 4007/552

NEED FOR INCREASED RAISING OF LEAN PORK HOGS STRESSED

Nanjing XINHUA RIBAO in Chinese 3 Aug 82 p 2

[Article: "Report on the Breeding of Lean Meat Hog Species"]

[Text] On 15 July measurements were made at the consolidated meat plant on 16 head of lean pork hogs bred by the Yangzhou Municipal Food Company Superior Variety Farm that had been slaughtered. On-site supervision and observation was done by veterinarians, technicians from all over engaged in the breeding of lean pork hog species, and cadres from the provincial food company system. What they saw was master workers practiced in hacking, chopping, slicing, and cutting use cleavers to remove the skin, and pointed knives to debone. In the twinkling of an eye, the fat and the skin was placed on one side, and the shoulders, forelegs, back and rear legs containing lean meat were layed out in an orderly fashion on the other. Then the director of the Jaingsu Academy's Dissection Teaching and Research Unit, Lu Tong [7120 2717], zestfully described for everyone the component muscles in each part.

Difficulty Marketing Hog Fat, Lard, and Pigskin

The Yangzhou Municipal Food Company deputy manager, Zhu Chun [4281 5028] had some other thoughts on his mind. He said, "Nowadays customers come to food markets carrying baskets and walking here and there. When they see very fatty pork, they just gape at it. The business people look at the fat they cannot sell and feel blue. After they have been supplied with cuts of pork, the price for lean pork goes up yet there is never enough to sell. The price for fat and lard tumbles, yet they cannot be sold. Consumers want lean pork, and we businessmen also demand hogs with more lean pork! Recently the Cuiyuanqiao food market in Yangzhou has had five head of hogs delivered daily, and everyday about 200 jin of fat cannot be sold. Because more and more poeple do not eat fat pork, between January and May last year the Yangzhou markets had no choice but to render 79 tons of fat into lard, and during the same period this year, this amount climbed to 1,081 tons. During the slightly more than a month since June, another 500 tons has been rendered into lard. The food company's lard bulges from warehouses and there are even 220,000 jin of leaf lard on hand. Pastry producers and eating houses have taken all the lard they can use. Nowadays pure vegetable oil pastries are all the rage, and year after year

bumper crops of rapeseeds are harvested. Sales of rapeseed oil to one food plant by the grain department amounted to 90,000 jin at parity price, and this crippled the market for lard. Still another change that has taken place is the difficulty in selling pigskin. Formerly some tanneries sent people to meat products plants to help remove the skin. Now, some remove the skin carefully and send it to tanneries, but they do not want it.

Increasing the Lean Pork Rate Can Be Done

The breeding of lean pork hog species is not only an urgent task, but a way already exists to do it. The Yangzhou Municipal Food Company's Superior Breeds Farm has done some experimental breeding, and has made measurements of four slaughterings. This was the fifth one, and the lean pork rate was a general 50 percent of so, more than 10 percent higher than the lean pork rate for most live hogs. Yang Qing'an [2799 3237 1344], doctor of veterinary medicine from the Provincial Food Company who personally participated in the breeding experiments, said that beginning since the end of 1978 the province has carried out experiments in the breeding of lean pork hog species at 10 sites including Shazhou, Nanjing, Yangzhou, Dongtai, Haimen, and Taixian, and that the lean pork rate has been stabilized at around 50 percent. Methods and means of achieving this have been worked out.

Provincial Science Commission agronomist, Comrade Zhang Chongying [1728 1504 5391] and others gave a brief and to the point explanation of the various techniques used in the province for the breeding of lean meat hog species. First has been the importation of lean prok boars for use as studs including Landraces (from Denmark), Yorkshires (from the United Kingdom), and Durocs (from the United States) for mating with local superior breed sows from Jiangsu Province, carrying out binary or ternary crossing. In order to make the most of the role of stud boars, the artificial insemination methods used by many superior variety farms may be used, the semen being delivered to where it is needed to hasten the spread of lean pork hog varieties. Second has been an increase in protein feed, particularly of animal protein such as fish meal and powdered blood, the coarse protein content being thereby increased to more than 15 percent. Third has been a mobilization of the masses to improve their feeding methods, reversing the customary method of feeding hogs poorly during the early stage of growth to build up their framework and feeding them well in the late stage of growth to build up their framework and feeding them well in the late stage to fatten them. Feedings of hogs until they reach a weight of 100 to 120 jin should be good, but hogs should not be allowed to eat better and better. All that is necessary is to assure that their nutritional requirements are met, while controlling growth at the proportion of 1 jin of flesh for each 3 jin or so of feed given each day, and a gradual cutback in feeding during the middle and late stages, nutritional levels being gradually reduced from the 70 percent level of the early period to 15 or 13 percent. Fourth is a change in butchering weight. After feeding for about 150 days, when the hogs have reached a weight of between 160 and 180 jin, they should be slaughtered.

Earliest Change Into the Work Promotion Stage

Zhang Zhao [1728 3564], Provincial Animal Husbandry Veterinary Medicine Society deputy director and professor at the Jiangsu Academy of Agricultural Sciences, gave lectures and showed slides in a combination of theory and practice to report on the history and present state of breeding and feeding lean pork hog species in the United States, Denmark, Canada, and Japan, and to report on successful experiments in the breeding of lean pork hog species done in Heilongjiang and Zhejiang provinces. Professor Zhang is 70 years old this year. In 1934 he raised and studied American Curoc hogs. At that time, this type hog was also a fatty one in the United States, but after 45 years the United States bred it into a lean pork type hog with a very high lean pork rate. So experiences exist abroad that can be borrowed, and inside China and within the province too there have been experiments. We can speed up our efforts a little, and now we should rapidly transfer to the promotion stage. The four techniques reported above for the breeding of lean pork hog species may not be gradually spread through the adaptation of general methods to specific local situations. The running of superior variety hog farms, the promotion of binary and ternary hybridization, the artificial insemination, the raising of pigs from the south in the north, and the supplying of different cuts of pork with increased differences in price for the fat and the lean, etc are real steps that have already been taken along this path.

Seriour attention on the part of leaders to change the policies that encourage the raising of overly fat hogs and to encourage the raising of hogs with a high lean pork rate will be a useful measure. Jiangsu Province annually uses between 6 and 7 billion jin of grain to raise hogs, but the pork it gets in return is largely fat that the society does not welcome. Should not promotion of the raising of lean prok hog species be placed on daily agendas with all possible speed?

9432

CSO: 4007/552

TWO PREFECTURES BECOME MAJOR COMMODITY GRAIN BASES

Beijing RENMIN RIBAO in Chinese 3 Aug 82 p 1

[Article: "Large Consecutive Year Grain Increases in Siping and Tieling Prefectures. Learning From One Another to Make Up Each Other's Deficiencies and Hasten the Building of Commodity Grain Bases; All-around Development of Forestry, Animal Husbandry, Sideline Occupations, Fisheries, and Industry, Collectives and Commune Members Gradually Becoming Prosperous"]

[Text] Siping Prefecture in Jilin Province and Tieling Prefecture in Liaoning Prefecture, located in the middle and upper reaches of the Liao He, have learned from each other, helped each other, and made up each other's deficiencies for tremendous increases in grain production year after year and the all-around development of forestry, animal husbandry, sideline occupations, fisheries, and industry, making an increasingly great contribution to the country. These two prefectures have become major commodity grain bases in the two provinces.

The story of how Siping and Tieling prefectures learned from each other to increase production and earnings has been told far and wide on both banks of the Liao He. It has been learned from authorities in both prefectures that last year Siping Prefecture's grain output totaled 5.38 billion jin, up 20 percent from the year before, and commodity grain turned over to the state totaled 2.66 billion jin, up 40 percent from 1980. Last year Tieling Prefecture's grain output totaled 4.82 billion jin, up 9 percent from 1980, and commodity grain turned over to the state amounted to 2.31 billion jin, up 20 percent from 1980. Development of production has occasioned a flourishing of the economy, and both the collective and commune members have gradually become prosperous.

Siping and Tieling are neighboring prefectures. Following the Third Plenary Session of the 11th Party Central Committee, both Siping and Tieling prefectures were designated commodity grain bases. They very rapidly increased grain production while at the same time actively developing economic diversification, realizing the common hopes of cadres and masses in both prefectures. At that time Tieling Prefecture's agricultural production was more highly developed than Siping's. Siping Prefecture CCP Committee First Secretary Huo Mingguang [7202 2494 0342] went down into communes and brigades to investigate and study, and the production experience of labor model Chen

Dianshuang [7115 3013 7175] of Shahe Second Brigade in Zhenxing Commune in Tieling Prefecture aroused his very great interest. He invited Chen Dianshuang to Siping to give lectures and teach his experiences. Chen Dianshuang's experiences in the use of phosphate fertilizer blossomed in Siping.

The attitude in Tieling Prefecture used to be: Agricultural production is intensive in the south and extensive in the north, and grain yields are high in the south and low in the north; one should learn from the south and not from the north. Last year Siping Prefecture promoted the production experiences of Chen Dianshuang and of Changtu County in Tieling Prefecture and, with the aid of the weather, total grain output climbed to 5.38 billion jin, 500 million jin higher than for Tieling Prefecture.

9432

CSO: 4007/543

PROVINCIAL CONFERENCE HELD ON ECONOMIC DEVELOPMENT OF MOUNTAIN REGIONS

Jinan DAZHONG RIBAO in Chinese 10 Jul 82 p 1

[Article: "All-around Launching of the Building of Mountain Regions to Hasten Development of the Rural Economy. Provincewide Mountain Region Work Conference Calls Upon All the Party and All the People to Mobilize. Conference Discussed Programs, Policies, Plans, Measures, and Leadership Problems in Mountain Region Constuction. Comrades in Charge from Provincial CCP Committee, Provincial Government and From all Prefectures, Municipalities, and Counties Join in Tree Planting Activities in Wulian County"]

[Text] A provincewide mountain region work conference lasting for 6 days concluded on 8 July in Wulian County. The conference called upon CCP Committees and governments at all levels in mountain regions to take in hand as an urgent strategic task the rapid construction of mountain regions, to go into action, to adapt general methods to local situations to do good planning, and to lead the broad masses of cadres and people to do a good job of mountain region construction in order to change the face of mountain regions with all possible speed, and make a new contribution in the all-around balanced development of the province's agricultural economy. Before the conference began, comrades in charge from the Provincial CCP Committee and provincial government went to more than 10 mountain counties including Wulian, Yingxian, and Liwu to investigate and study. Comrades in charge from municipalities and counties everywhere went to Wulian and Yingxian counties to inspect and study, and they made rather well thought out preparations. During the conference, the Wulian County CCP Committee, the Yingxian County CCP Committee, and the Jietou Commune CCP Committee from Wulian County gave briefings on experiences. The CCP committees from Laiwu, Rizhao, Xixiz, Zhucheng, Kuanxian, and Mengyin counties, the CCP committees from Haiqing Commune in Jiaonan, from Mada Commune in Taian City, the Beizhuang Commune in Zaozhuang City, the Ezhuang Commune from Zibo City, and Sizhang Commune from Sishui, and the General Party Branch and Party branches of the Xiadingjia Production Brigade in Huangxian, from Nan yan Production Brigade in Yidu, and from Liujia Production Brigade in Licheng made illustrative remarks.

Comrade Bai Rubing [4101 1172 3056], Provincial CCP Committee first secretary, made a major speech at the conference on the subject of "Mobilization of All the Party and All the People to Hasten the Pace of Mountain Region Construction."

The conference acknowledged that in order to hasten the building of mountain regions, the entire province from top to bottom will have to have a renewed understanding of the mountain region. For a long time many comrades have lived in the mountains without understanding the mountains. They have linked "mountains" and "poverty" together, and have carried around a notion of "barren mountains and unruly rivers." Very clearly such ideas are wrong. Granted that in mountain areas slopes are steep and ravines numerous, the soil infertile and water lacking, and communications difficult, these are their weaknesses. But in mountain regions the land area is vast, resources are abundant, the production potential is great, and ways to earn income are numerous. These are their tremendous strengths. These are strengths that plains areas cannot match. In the province's mountain and hilly regions, average amounts of cultivated land per capita is 1.4 mu and the average amount of mountain land along streams is 2.3 mu. Were these mountain areas along streams to be planted to grain, the yields from 3 mu would be equal the yields from 1 mu on the plains. Were fruit trees planted on them or were they used for timber forests, earnings from a single mu would equal those from several mu of grain. It should also be realized that if farming, livestock raising, mining, and processing industries were carried out in the mountain regions, economic effectiveness would be even greater. In some mountain regions production has not been well handled and the standard of living of the masses of people is fairly low. This is not the result of resources not being abundant there but rather because leaders do not have a correct appreciation of mountain regions. In beginning construction of mountain regions, their understanding has come late and their actions are slow. "If there is a mountain, it holds a treasure, but it is not easy to find." Only if one genuinely realizes the wealth that the mountain regions contain and is adept at adapting general methods to local situations to fight his own battle from a position of dominance, the mountainlands along streams will then become "money trees" and "cornucopias."

As to what construction program to pursue in mountain regions that would be of crucial importance to mountain region economic development, the conference summarized the lessons of historical experience and recognized the need to take a firm grip on the major mountain region contradictions, to define the main direction of attack, and to persevere overall in carrying out the Central Committee's program for "positively no relaxation in grain production while actively developing economic diversification," persevering in taking forestry as the key link in a combination of farming, forestry, and animal husbandry for economic diversification and all around development to take the path of "relying on the mountain for food to eat and nurturing the mountain that feeds one." Facts have shown that in development of mountain region agriculture and the entire mountain region economy, the decisive element is forests. Forest trees are the main switch and the hub of the natural world. They not only provide lumber, firewood, fruits, and such direct economic benefits, but they hold water resources, preserve water and soil, break the winds and stabilize sands, regulate climate, purify the air and provide such indirect benefits. As the masses say, "To grow many trees in the mountains is the equal of building a reservoir. When it rains, they can swallow it; when it does not rain, they can spit it up." "A few trees with a little water and much ground becomes wet;

with trees and grass, there is water." Of course, to maintain that forests are the key link in mountain regions is positively not the same thing as "concentrating only on one thing." Fundamentally speaking, forestry and farming, the livestock raising industry, processing industries, and other industries are mutually interdependent and mutually promoting. No one of them can be dispensed with. Simultaneous with development of forestry production must come rational arrangements for diligent attention to grain production, the adaptation of general methods to local situations for development of the livestock industry, industrial sideline occupations, processing industries and mining industries for active development of economic diversification, so that forests will advance grain and grain will advance forests for the all around development of farming, forestry, livestock raising, sideline occupations, and fisheries.

In view of the almost infinite variety of natural conditions in the geology, topography and climate of mountain regions, the complexities of situations, and the fairly numerous avenues for production, the conference expressed the view that mountain region construction must have a battle plan consistent with objective realities, i.e. an overall plan. Only by having a good plan can it be possible to set combat objectives and the main direction of attack and only then will it be possible to do overall planning taking all factors into account and make comprehensive arrangements, and only then will it be possible to avoid blindness, to increase scientificness, and to garner maximum economic benefits. In summarizing the experiences of various jurisdictions and formulating mountain region construction plans, problems to which emphasis should be given are the following: Centralized planning must be done for mountain waters, fields, forests, and roads, tackling them in a comprehensive way, both giving attention to current production and placing emphasis on long range construction. In the building of production and the development of science, culture, education, and health endeavors, overall considerations must be given. Full use must be made of the role of science and technology in the building of mountain regions, and all trades and industries must be organized for vigorous support of mountain region construction. Each jurisdiction must be permitted to adopt different methods of tackling problems and to carry out various different kinds of production responsibility systems, to establish different kinds of operations so as to fully arouse the enthusiasm of state-owned farms, people's communes, production brigades, production teams, vocational teams, and commune member households. Only in this way can concerted efforts be made and everybody keep in step in advancing into the mountains, each fighting his own war from a dominant position to hasten the pace of mountain region development.

The conference emphasized that development of the mountain regions is a long term and extraordinarily arduous task, the crux of which lies in the strengthening of leadership so that there will be leadership teams capable of conscientiously and thoroughly carrying out the party's line, programs and policies, that that will be imbued with an ardent sense of revolutionary mission and a spirit of creativity that is able to take the lead in action to open a new situation. The advanced units that spoke at this conference all possessed these characteristics. However, today some leadership teams in mountain regions lack great zeal. They attempt nothing and accomplish nothing.

All they do is keep doing the same old things, never starting anything new, and the natural situation in mountain regions remains the same old way year after year. In the case of such units, firm attention has to be given to ideological rectification and reorganization to help them establish strong leadership nuclei, to rouse their revolutionary spirit, and to increase their fighting capacity. In mountain regions every leadership team and every member of the Communist Party should be like the comrades from Wulian in their resolve to create wealth for the people and to leave behind green mountains and clear waters for posterity and positively not bequeath to them barren mountains and bald ranges. It is necessary to have lofty ideals and great ideals, to carry forward the spirit of the foolish old man who "would not stop digging the mountain," to struggle arduously, to charge forward at the head of one's men, to set a personal example, and to be a leader in the building of mountain regions.

Comrades who attended the conference studied pertinent instructions from the Central Committee and discussed Provincial CCP Committee and provincial government decisions (revised draft) on hastening the building of construction in mountain regions, as well as Comrade Bai Rubing's report. They compared the experiences of advanced units and summarized the lessons of their own experiences, expanded their horizons, increased their understanding, strengthened their sense of urgency and sense of responsibility for development of mountain regions. Everyone expressed themselves as determined to act in accordance with the call of the Provincial CCP Committee and provincial government, to fit actions to words, to bring about a change in the appearance of mountain regions within 3 years, to see results in 5 years, and to bring about great changes within 10 years, entirely afforesting the Yilin mountain lowland areas along streams by 1985 and substantially completing afforestation by 1990, so that all of Shandong will be greener and more luxuriant.

In order to give expression to the resolve to build up the mountain regions and to give impetus to a mass movement for taming the mountains and creating forests, comrades in charge at the Provincial CCP Committee and provincial government such as Bai Rubing, Li Zhen [2621 2182] and Zhou Zhen [0719 2182], and comrades in charge attending the conference from departments directly under the jurisdiction of prefectures, municipalities, counties, and the province planted ginkgo trees and pine trees at Wulian County.

9432

CSO: 4007/544

SCIENTIFIC TECHNIQUES FOR RAISING YIELDS CONVEYED TO PEASANTS

Jinan DAZHONG RIBAO in Chinese 4 Aug 82 p 3

[Article: "Reliance on Scientific Techniques to Improve Low Yield Fields. Experiments Increase Yields By 80 Percent on 100 Mu of Low Yield Wheat Fields in Huimin Prefecture"]

[Text] In a year of great drought, the Huimin Prefecture Science Commission has won remarkable results, increasing yields by 80 percent in experiments with techniques to increase yields from low yield wheat fields on a 100,000 mu experimental area. Yields have averaged 379 jin per mu, a 170 jin increase over the average yields for the previous 3 years. This action has been praised by the peasants as "the way for low yield fields to make a new start."

Low yield fields are the "old big difficulty" in that prefecture's development of agricultural production. The low yield field area for crops such as wheat, corn, soybeans, and cotton amount to a general 70 percent of the total area sown. Low yield fields with wheat yields of less than 150 jin per mu have occurred every year for the past 5 years over an area of more than 3 million mu. In order to improve these low yield fields through the use of scientific techniques, the Huimin Prefecture Science Commission launched experiments on the foundation of average 65 percent yield increases effected through the use of yield increase techniques last year on low yield corn, soybean, and cotton fields. Last year they again set up experiments with techniques for increasing yields on 100,000 mu of low yield wheat fields. During the entire growing season for wheat, they used 17 technical measures including replacement with superior varieties, increased fertilization with phosphate fertilizer, earliest possible sowing, and reasonably close planting. In order to verify each technique scientifically, at 23 sites they set up phosphate fertilizer experiments, comparisons of varieties, and watering season experiments as part of 13 different experiments. They planted 62.6 mu of experimental fields, and intensified qualitative and quantitative analysis of all techniques used in experiments.

In order to assure smooth conduct of experiments, within eight experimental areas they set up individual leadership teams composed of 55 persons in charge in counties, communes, and departments concerned, technical advisory groups composed of 73 specialized scientific and technical personnel, and

eight experimental area technical teams. Throughout the period of the experiments, all experimental areas jointly conducted 39 technical training classes to train 5,846 attendees. They ran 26 technical broadcast lecture courses to a listenership of more than 22,000. They printed 21 pieces of technical data, which they issued in more than 50,000 copies. They also used night schools, country market publicity, performances in fields, and such methods to get techniques into the hands of the broad masses of peasants. In addition, they also instituted responsibility systems linking techniques to output, production responsibility systems, and cadre personal responsibility systems within the experimental areas, and they used contract agreements, economic methods, and systems of responsibility to fully arouse the enthusiasm of cadres, peasants, and scientific and technical personnel to do a good job of experimental work.

9432

CSO: 4007/556

SUCCESS OF ECONOMIC DIVERSIFICATION IN ONE PREFECTURE HAILED

Jinan DAZHONG RIBAO in Chinese 15 Jul 82 p 2

[Article: "Value of Good Plans Lies In Their Implementation; Remarkable Increase in Earnings from Economic Diversification in Taian Prefecture"]

[Text] The Taian Prefecture CCP Committee and government administrative offices have gained excellent results by emphasizing attention to the implementation of economic diversification production plans. As of the end of April, total earnings from economic diversification for the prefecture as a whole had increased by 34.2 percent over the same period last year. Three counties of the prefecture's eight counties and municipalities had earnings that were more than 50 percent greater than last year.

Formerly some counties and communes in this prefecture were frequently content with simply formulating plans for economically diversified production, but they did not devote much attention to the implementation of plans. As a result plans were not fulfilled, and some of them came to nothing. In order to change this state of affairs, this year the Prefecture CCP Committee and government administrative offices changed its method of leadership. It first achieved shortrange implementation of longrange plans, carrying out regular inspections in farming seasons on production links. The main thing they tackled during the first half of the year was the farming industry and the breeding industry. They supervised, urged on, and inspected, used every available means to combat drought to grow economically diversified crops, gave strict attention to the raising of newborn livestock, assuring increased output and increased earnings for the last half of the year. Second, they used contract agreements to put production plans into effect with teams, households, and individuals. In this regard, all counties sent out work teams to emphasize help to communes and brigades in further perfecting and stabilizing economic diversification contracting systems of responsibility, and in summarizing experiences at key points to guide work over wide areas. In addition they used loans or funds provided by collectives to assist hardship units and individuals in the implementation of production programs and the development of economic diversification, helping them do a good job of existing industrial sideline production projects, in closing economic gaps, in lowering production costs, and improving economic effectiveness. As a result of adoption of these measures, this year the prefecture has expanded its "economic fields," and plans for 244,500 mu have been entirely implemented. This measure alone can

increase earnings by 48.1 million yuan. In the task of spring season tree planting and forestry management, in addition to large scale efforts to transform mountains through afforestation and making the four besides [besides roads, streams, villages, and houses] green, they intercropped tung trees and grain over a 366,300 mu area and newly planted 1.89 million fruit and nut trees, and 9,500 mu of mulberry groves. The prefecture's collective and individual raising of livestock and poultry of all kinds also increased remarkably. Fairly great increase occurred in the numbers of cattle, sheep and goats, rabbits, and geese raised, and the number of live hogs rose again. The number of long haired rabbits increased by 1.5 million. Industrial sideline production also saw new development in the prefecture's production brigades and production teams, and more than 10,000 new jobs in crushing stone, building, and food and beverage service have come into being.

9432

CSO: 4007/543

BRIEFS

GRAIN DRYER BUILT--The 5HY-2 grain dryer designed by the Provincial Farm Machinery Institute and the Weifang Prefecture Farm Machinery Institute and manufactured by the Linqu County Tractor Plant is of advanced design, is well-made, is sensibly engineered, is easy to set up, use, and move, and operates reliably. Recently technically approved, this machine operated in 25°C temperature at a relative humidity of 80 percent to dry grain with a 25 percent water content. At a water removal rate of 10 percent, it dried 2 tons of grain an hour for storage after a single drying. After drying, grain quality did not deteriorate, and it met nationally formulated standards. This is the first medium size grain drying machine to be designed and manufactured in China, and it is suitable for use on medium and small size farms and granaries. [Text] [Jinan DAZHONG RIBAO in Chinese 15 Jul 82 p 2] 9432

4007/543

YUNCHENG PREFECTURE'S MEASURES FOR FIGHTING DROUGHT EXPLAINED

Beijing NONGGUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 8,
Aug 82 p 27

[Article by Yuncheng Prefecture CCP Committee Secretary Tong Yun [0104 7189]:
"Persevere in Protracted Combat Against Drought to Win A Bumper Harvest for
the Year as a Whole"]

[Text] Yuncheng Prefecture is the main grain producing area of Shanxi Province, yet it is an area where 9 out of 10 years are drought years. Total rainfall for the 1950's was 700 millimeters; during the 1960's, it was 600 millimeters; and total rainfall during the 1970's declined to from 400 to 500 millimeters. Since Liberation, 27 of 34 years have had protracted drought with little rain. Spring drought followed by summer drought occasions very great hardships for the development of agriculture.

Faced with such a grim problem, in its guidance of agricultural production the Prefecture CCP Committee has gradually established a mentality of protracted combat against drought making perseverance in protracted combat against drought a strategic matter of major importance that must be given attention in agricultural production. Since the Third Plenary Session of the 11th Party Central Committee, in particular, it has proceeded from realities both building water conservancy to improve upon nature and to summarize and promote traditional mass experiences in combat against drought to meet nature. It has repaired its house before it rains, guarded against drought when there was no drought, combatted drought when there was drought, and persevered in combat against drought to win bumper harvests.

First of all we have assiduously summarized and promoted the traditional farming methods of drought stricken Wanrong and Linyi prefectures of "harrowing whenever it rains," and the method for combatting drought and conserving soil moisture used by Dongguanzhung in Wenxi County of raking after plowing on hot summer days to "put summer rains to use in spring," and leveling fields to make the surface crumbly and the bottom solid to reduce moisture evaporation. The masses refer to this method as "being busy for three days after a rain, busy at conserving soil moisture." At the same time every available means is used to store water that falls from the sky. Most of the prefectures 132 reservoirs store water during spring to make ready the water needed during the three 10 day periods of the hot season.

Last August the summer drought was severe. I went to Sanquan Commune in Xinjiang County where together with comrades in charge from the County CCP Committee we watched them use the grape reservoirs built of small amounts of water from small springs. This invention of the masses is handy and easy to use, requires little expenditure of money, and shows quick results. Following discussions with the local masses, full use was made of small spring water resources to enlarge the irrigated area by more than 20,000 mu. Next we spread this experience throughout the prefecture, Ruicheng and other counties made full use of small amounts of water from small springs to build grape reservoirs with very good effectiveness. More than 2,500 small water conservancy construction projects have now been built throughout the prefecture with wells taking the place of ponds, and stations taking the place of ponds for storage when it rains and use when it is dry to expand the well-irrigated area and increase ability to combat summer drought.

Second, while summarizing and perfecting agricultural production responsibility systems, we conscientiously established and perfected water conservancy responsibility systems using every available means to increase the water utilization rate for water conservancy facilities. Many years practice has shown that eating out of a large common pot does not work, and that "drinking out of a large pot" sows endless seeds of disaster. First, we summarized and promoted the experiences of Qiaoxue Production Brigade in Wanrong in centralized management and centralized maintenance of wells, and centralized provisions for persons to look after the wells within the institution of commune member ticket purchases for irrigation. The advantages of this responsibility system were both maintenance of water conservancy facilities to make the most of the role of water conservancy facilities, and arousal of the enthusiasm of commune members for irrigating their fields while closing loopholes in payment for water and electric power. Now, more than 85 percent of water conservancy facilities and deep wells have set up different forms of responsibility systems, which not only save water and electric power, but also make for faster and better watering of the fields. Benefits from irrigation have increased remarkably, and the in-service rate and the utilization rate for equipment has increased from the former 55 percent to better than 80 percent. Since last year the irrigated area throughout the province has expanded by 212,000 mu. Water management units have also engaged in economic diversification for earnings totaling 2,050,000 yuan to create an all time high.

Third, in light of the drought that characterizes Yuncheng Prefecture, we have bred and introduced more than 10 drought resistant varieties of wheat and cotton and have increased fertilization with organic fertilizer, rather effectively withstanding drought disaster onslaughts. Formerly, as soon as drought stricken areas encountered the summer drought, between 400,000 and 500,000 mu of autumn crops would be damaged. Now, the drought resistant crop varieties that have been bred and introduced ripen relatively early, some of them avoiding the summer drought. For example when corn was planted where wheat was growing, for the 500,000 mu of intercropped corn, flowering and booting stages avoided the choking drought. In addition, we also gave serious attention to increase in organic fertilizer to improve the soil's ability to withstand drought. It has been found that between May and October

fertile soil with an organic content of 1.11 percent evaporates between 14 and 19 percent less moisture than infertile soil with an organic content of 0.6 percent. Were the infertile soil to be transformed into fertile soil, that would be the same as 520 millimeters of rainfall a year being increased to 750 millimeters. Consequently, in our crop patterns, we must arrange for the green manuring and return to the fields of stalks and stems on more than 100,000 mu to increase soil fertility and ability to preserve moisture.

Since last winter Yuncheng Prefecture has not had a soaking rain, and the drought continues. The masses continue to fight drought, striving to win a bumper harvest for the year as a whole.

9432

CSO: 4007/533

RAINY SEASON AFFORESTATION STATISTICS GIVEN

Beijing RENMIN RIBAO in Chinese 26 Jul 82 p 1

[Article: "More Than 240,000 Mu Afforested in Shanxi During Rainy Season; Firm Grip Taken on Advantageous Opportunity to Rush Plant"]

[Text] As the year rolled into July, the Shanxi rainy season tree planting and afforestation campaign steadily unfolded from north to south. As of 22 July more than 240,000 mu had been afforested throughout the province though afforestation of 226,000 mu had been anticipated. In former years the onset of July brought continuous overcast and rainy weather in most parts of the province. This year, once the rainy season began, rainfall in many places tended to be light. Faced with such unfavorable weather, all locales bided their time, getting ready to plant trees and do afforestation before the arrival of the rains, and once a soaking rain fell, they immediately rush transplanted and rush planted. The 21 counties in the western mountain region of Shanxi Province, which are part of the three norths shelter forest system, have afforested more than 172,000 mu as of now. Within less than 20 days Huguan County afforested more than 35,000 mu.

While all jurisdictions in Shanxi were using people to afforest, they also began active airplane sowing for afforestation. Statistics from the four counties of Bianguan, Kefeng, Wuzhai, and Lishi alone show that during this year's rainy season aircraft sowed seeds for the afforestation of more than 85,000 mu.

9432

CSO: 4007/512

FIFTH CONSECUTIVE BUMPER RAPESEED HARVEST REPORTED

Chengdu SICHUAN RIBAO in Chinese 10 Jul 82 p 1

[Article: "Province Overfulfills Rapeseed Procurement Plans; Bumper Rapeseed Crops Harvested For 5 Consecutive Years"]

[Text] This year Sichuan harvested a bumper rapeseed crop for the fifth year in a row. Output totaled more than 2.16 billion jin, a more than 30 percent increase over last year and exceeding the level of any other period in history. As of 5 July, more than 1.99 billion jin of rapeseed had been purchased in the province, 489 million jin more than the amount called for in procurement plans handed down by the province for 32.3 percent overfulfillment of plan.

In order to do a good job in this year's rapeseed procurement work, before the rapeseed was harvested grain departments conducted training of personnel, increased the number of network outlets, built and repaired a group of granaries and oil storage facilities, and used various methods to give wide publicity to the peasants about no changes in this year's rapeseed procurement policies, no changes in procurement prices, no time limit on procurement, and no limit on quantities that would be purchased, fully satisfying peasant requirements and demands in selling rapeseed. During procurement all jurisdictions strictly carried out a system of classification and grade inspection, overcoming any attempts to deprecate quality in order to drive down price or inflating quality in order to raise price, and assuring quality of rapeseeds put into storage so that both the country and the peasants would stand to gain. Now, peasants everywhere are continuing to sell the state their sun-dried rapeseeds.

9432

CSO: 4007/512

LARGE INCREASE IN CONSUMER GOODS PURCHASES REPORTED

Chengdu SICHUAN RIBAO in Chinese 13 Jul 82 p 1

[Article by Finance and Trade Department, Sichuan Provincial Statistical Bureau: "Province's Rural Markets Unprecedentedly Active; Great Bumper Harvests From Crops Sown in Late Autumn; Tremendously Increased Purchases of Agriculture and Sideline Products"]

[Text] This year the province's rural villages have instituted production responsibility systems everywhere; a bumper crop of crops sown late last autumn has been joyously harvested; and quantities of agricultural and sideline products purchased by the state have increased tremendously. As of the end of June, 64.7 percent more rapeseeds had been purchased than last year, 14.4 percent more grain, 4.3 percent more spring cocoons, 62.6 percent more spring vegetables, and 57.8 percent more jute. Purchases of agricultural and sideline products during the first half of the year totaled 2.865 billion yuan in value, a 22.6 percent increase over the same period last year. Cash disbursements by banks and credit cooperatives to rural villages this year for the purchase of agricultural and sideline products were more than 400 million yuan greater than for the same period last year, an increase of 48.5 percent. As a result, rural markets were unprecedentedly active during June of this year. Social commodity sales figures for the province during June stood at 1.495 billion yuan, 16.6 percent greater than during the previous month and 16.6 percent greater than during the same period last year, for a new all time high for social commodity retail sales figures for June. Rural retail sales of consumption goods amounted to 604 million yuan, 26.4 percent and 17.9 percent greater than for the previous month and the same month last year respectively. Prefecture by prefecture breakdown shows greatest increase in retail sales figures for grain and edible oils. A breakdown by varieties shows greatest increase was in agricultural means of production. June retail sales figures were 33.2 percent and 28.0 greater respectively than for the previous month and for the same month last year. Chemical fertilizer sales to rural villages increased by 44.4 percent over the same month last year. Pesticide sales increased by 53.9 percent over the same month last year. Sales were very brisk for all major industrial goods such as cotton-polyester cloth, chemical fiber cloth, cotton cloth, watches, transistor radios, sewing machines, bicycles, soap, and laundry powder.

Problems in markets deserving of attention just now are as follows: Stocks of goods in storage in commercial departments have increased very greatly requiring active assembly of industrial goods to be sent to the countryside. As of the end of June, commodities stored in large and medium size cities and in county seats accounted for 76.3 percent of the total value of stored goods; commodities sent to the countryside amounted to only 23.6 percent of value. Market situation estimates by some grassroots level commercial departments following the bumper harvest of autumn planted crops were inadequate. They did not dare bring in goods courageously, with the result that in some places Chongqing and Shanghai wristwatches, transistor radios, cool foam shoes and chemical fertilizer ran out of stock.

9432

CSO: 4007/512

SUMMER GRAIN PROCUREMENT QUOTAS OVERFULFILLED

Chengdu SICHUAN RIBAO in Chinese 14 Jul 82 p 1

[Article: "Province's Summer Grain State Procurement Quotas Overfulfilled"]

[Text] This year Sichuan Province has once again harvested a bumper summer grain crop, output rising by more than 10 percent over last year. As of 5 July the province had already exceeded state summer grain procurement quotas by 8.8 percent, the amount in storage being 550 million jin more than for the same period last year. Quality of grain in storage was also better than last year, and the wheat flour milling rate was higher than last year.

Under the leadership of local party and government, grain departments at all levels this year assiduously carried into effect the principle of concurrent concern for the welfare of the country, the collective and commune members as well as price policies, and actively helped production teams implement household by household sales quotas, institute the setting up of outlets in designated stretches, arrange appointments to turn over grain, and improve service attitudes as a convenience for commune member grain sales to the state.

While actively purchasing, grain departments everywhere also gave attention to provisions for mass welfare, promptly making arrangements for the small number of people whose grain rations did not last until the fall crop could be harvested.

9432

CSO: 4007/523

POLICY REGULATIONS ISSUED ON RURAL ECONOMIC DEVELOPMENT

Chengdu SICHUAN RIBAO in Chinese 14 Jul 82 pp 1,2

[Article: "Provincial CCP Committee and Provincial Government Enact 10 Policy Regulations to Meet New Circumstances and To Hasten Rural Economic Development"]

[Text] On 29 June, the Sichuan Provincial CCP Committee and Sichuan Provincial People's Government issued "Policy Regulations on Various Problems in the Hastening of Sichuan Province's Rural Economic Development, the text of which said as follows:

In order to hasten Sichuan Province's rural economic development, while continuing to carry out a series of effective programs and policies from the Central Committee and the Provincial CCP Committee, in order to meet new circumstances it is necessary to adopt some policy measures. Following full discussion by the Provincial CCP Committee work conference, the Provincial CCP Committee and provincial government enacted the following policy regulations.

1. In the work of instituting the "two systems" in forestry, all places where conditions permit may suitably allocate more privately retained mountains for commune members, and designate barren mountains, wasteland slopes, and unused land that the collective cannot readily use for the planting of trees and afforestation by commune member households. Ownership of the land will still belong to the collective, but ownership of the forest trees will belong to commune members with the right of inheritance. Commune members should be energetically encouraged to plant small orchards, small mulberry groves, and small tea gardens as well as to grow other economic woodlands in front of and behind their houses, on private plots, on privately retained mountains, and in places designated by production teams, all income reverting to themselves, with no changes to be made for a long period of time. The state and collectives are to lend active support in the supply of seedlings and technical guidance.

Collectively owned continuous tract woodlands are to institute "four specializations and one contracting." Economic woodlands in cultivated lands and along

fields should be contracted out together with the fields as part of a unified whole, earnings or benefits to be paid to hire authority from the assumption of sole responsibility for task completion being proportionally divided so the directly involved enterprises gains more the more he works. Bald mountain and barren slope tracts that lend themselves to collective endeavors should be run by specialized units and specialized teams organized by production teams. Alternatively, they may be handled as responsibility mountains and contracted out to commune member households for the planting of trees, no changes being made for a long period following contracting, benefits being divided between the collective and the commune members, the commune members getting the greater share.

2. State owned forests that the state is unable to take care of should be contracted to the care of on-site communes and brigades with proper remuneration being given them. Railway and highway right of ways, the banks of streams and trunk irrigation canals, and the areas around reservoirs that have already been afforested are to be strictly protected. Where trees have not yet been planted, units in charge may do the afforestation and retain ownership of them, or they may afforest jointly with communes and brigades, proceeds being proportionally divided. Alternatively, following agreement from units in charge, nearby communes and brigades may do the afforestation, the trees reverting to the ownership of the commune or brigade or to the commune members, However, felling of trees may be done only on the authority of units in charge.

3. In high mountains or places way back in the hills, attention should be devoted to the building of basic farmlands and to increasing yields per unit of area. While assuring steady increases in total grain output, steep slopes that should gradually be withdrawn from cultivation and revert to forests or pasturelands may become reserve lands for production teams and contracted to specialized teams or specialized households for the planting of trees and the growing of grass. Responsibility lands that have been contracted to commune member households may, so long as fulfillment of payments to higher authority are assured and with no changes for a long period of time on contracted lands, be afforested by contracting households, earnings being retained by them. The foregoing methods may also be used by collectives to provide contracting households with seedlings for planting with payment of stipulated remuneration, a certain amount of earnings being paid to higher authority, or earnings being proportionally divided, the commune members receiving the greater portion.

4. In 1980 the Provincial CCP Committee decided that beginning in 1981, "the provincial treasury would annually allocate about 15 million yuan for use within the province (including mountain areas of the province) to subsidize communes and brigades to afforest 1 million mu with quick growing high output timber." In the same year, a provincial government document made specific arrangements in this regard. This is a major policy for hastening the building of forestry

within the province, which has gained the deep support of the masses. Departments concerned should conduct an inspection of the implementation of last year's decisions and of arrangements for this year's plans, solve existing problems, and assure that policies continue to be honored. Funds for the growing of forests and development funds may be used only for the planting of trees in afforestation; they may not be diverted to other uses.

5. In 1980 the Provincial CCP Committee decided to allocate 395 million jin of grain as assistance for use in helping mountain regions and poor brigade and minority nationality area communes and brigades to rest and recuperate, to readjust the structure of their agriculture, and to develop production. Practice has shown results to have been very good. The ordinarily prescribed time was 3 years, and it has now been decided that this policy is to continue in force until 1990. Norms given by the province to prefectures, municipalities, and zhous remain unchanged; norms from prefectures, municipalities and zhous to counties, and norms from counties to communes and brigades may be suitably readjusted on the basis of changed circumstances in the development of production, and in accordance with the principle of rational utilization. These grain norms should be used by counties in centralized planning, mostly in the withdrawal of land from cultivation for reversion to forests or pasturelands and for reducing procurement or setting sales in production teams that have low yields and are short of grain, as well as for assistance in the building of forestry, livestock industry or economic diversification bases. Generally there is to be no linking of state procurement of agricultural and native sideline products to grain.

6. In order to give mountain region counties a little more initiative on the grain issue in order to carry out readjustment of their agricultural structure, it was decided to institute assumption of full responsibility for grain in high mountain areas (not including the three zhous). In the assumption of full responsibility method, because of the prevailing margin between procurement and sales in areas concerned with some fixing amounts of assistance, some fixing amounts to be paid to higher authority, some seeking balance, a corresponding system of sole fiscal responsibility has been instituted and guaranteed without change for 5 years.

In mountain counties where financial outlays are greater than financial income year after year, sole responsibility for fiscal subsidies is to be tried out. This entails taking the 1982 budget as the base figures, instituting fixed amount subsidies for the difference between expenditures and revenues, with no change guaranteed for 3 years. Increased revenues and savings on expenditures are controlled by counties and used principally for development of the economy of the mountain area, for the building of highways, for cultural and educational endeavors, and for the popularization of science and technology. Following assumption of sole responsibility, except for the readjustment wages of administrative enterprenural units, which will be borne by the province, all

other reduced revenue and increased expenditure matters newly approved by higher authority will be borne by the county assuming sole responsibility.

In the matter of specific methods for the three prefectures of Fuling, Wanxian, and Yaan in which public funds expenditures are greater than revenues the province will institute a system of sole responsibility for fixed sum support on the basis of the foregoing principle for the prefectures. Sole responsibility methods for counties are to be decided by prefectures. For remaining mountain region counties in which public funds expenditures are greater than revenues, prefectures will institute sole responsibility for counties, and the province will continue to maintain without change the prevailing financial system in these prefectures; however, in figuring the financial quotas for these prefectures, the increased fiscal revenues of counties assuming sole responsibility are to be eliminated.

7. In instituting base figure procurement and proportional procurement of agricultural and sideline products, basic stability is to be maintained. A conscientious job is to be done with the contracts system. State centralized procurement, assigned procurement and allocation quotas are to be assured fulfillment. For products designated by policies as being left to collectives and commune members for their own disposition, the right of self-determination is also to be assured. Specific regulations handed down by all trades and industries in this regard must be in total agreement with the regulations of the Provincial CCP Committee and provincial government.

8. Institution of various forms of joint operations and integrated operations is a path that has to be taken to hasten development of the rural economy. While adhering to the principles of voluntary participation, mutual benefit, equality, and discussion, encouragement should be given the breaking of regional, trade and ownership lines for development of various forms of joint enterprises. Units participating in jointly run enterprises are to maintain their original ownership, their command relationships, their basic accounting units, and their tax and earnings calculation and payment relationships without change, basic accounting units figuring output value and figuring tax levies to be collected. All levels of CCP committees, government, and departments concerned are to enhance guidance to the various kinds of joint enterprises, avoid duplication in the construction of plants, and help in the distribution of economic benefits to harmonize relationships of all parties. Design commissions, economic commissions, and state enterprises concerned at all levels are to adopt various forms of joint operations and economic and technical cooperation to help mountain region countries and national minority areas develop processing industries and mining industries, and to carry out preliminary processing and all around use of products. The experiences in joint operation of joint enterprises of Qionglai, Dazhu, Hechuan, and Helin counties are to be summarized and promoted. In addition, vigorous development should be given various forms of rural specialized households, key households, and joint enterprise households,

support given commune member household sideline occupations, and encouragement given commune members to become prosperous through labor.

9. In order to train technicians possessed of various kinds of specialized knowledge needed in rural villages, reform of the structure of rural secondary school education has to be hastened. Most counties are to change within a period of 2 or 3 years the present general middle school system into a so-called vocational middle school (not including job assignments), and to operate upper middle school vocational classes and vocational technical courses in ordinary middle schools. After ordinary middle schools have been changed to vocational middle schools, channels for expenditures will remain unchanged under the centralized management of the educational departments, with additional payments for specialized teacher wages. Departments concerned are to organize some specialized technical personnel to serve concurrently in work positions and to teach, and to lend support in fieldwork sites and in needed experimental facilities. All departments of all industries are to operate various short term technical training classes as requirements dictate.

10. In order to fill out and strengthen commune cadre ranks where shortages exist in terms of current commune tables of organization, in addition to the three ways proposed this year by the Provincial CCP Committee (namely, 1. annual selection from among the graduates of schools specializing in farming, forestry, aquatic products, and finance and trade of a group for assignment to work in communes; 2. selection of personnel qualified to be cadres and who hold prospects for training from among those who are to replace retired cadres for transfer to communes to work for workers' wages after they have been comprehensively certified; then, after 2 years of tempering and testing, the finest being selected for promotion to cadre; 3. selection from among enterprises, institutions, and administrative units owned by all the people of a group of outstanding farming technicians and young cadres to fill the commune cadre ranks), cadres partially relieved of regular duties in communes, and outstanding party member cadres in production brigades and production teams may be selected. Following strict testing, the young and strong who are cultured, understand technology, and have definite work ability may be sent to fill up the ranks.

This document concluded by saying that if any of the foregoing regulations do not accord with documents formerly issued by the Provincial CCP Committee and provincial government, the regulations contained herein are to be applied. All levels of CCP committees and government, and all provincial level departments concerned are to prepare specific methods of implementation in accordance with the foregoing regulations and assure their implementation.

9432

CSO: 4007/523

BRIEFS

LIVESTOCK PRODUCTION UP--This year the animal husbandry industry in the Xinjiang-Uighur Autonomous Region had a bumper crop. Statistics show that as of the end of June 9.5 million head of lambs and kids, foals, calves, and young camels had been born and survived, an all time high since founding of the People's Republic in the number of young livestock animals obtained. More than 34 million head of livestock were in inventory, a more than 1.5 million head increase over the last livestock industry year. This is the fifth year in which the Xinjiang animal husbandry industry had a bumper crop of livestock. [Text] [Beijing RENMIN RIBAO in Chinese 26 Jul 82 p 1] 9432

CSO: 4007/512

THREE STAGE PLAN FOR XIZANG ECONOMIC DEVELOPMENT OUTLINED

Beijing RENMIN RIBAO in Chinese 3 Aug 82 p 1

[Article: "Xizang Formulates Measures for Development of Farming and Livestock Industries to Hasten the Pace of Becoming Prosperous, Aims For a Small Change Within 3 Years, a Moderate Change in 5 years, and a Major Change in 10 Years. Continued Need to Make the Most of the Power of Policies, to Improve Production Conditions, and to Use Advanced Scientific Techniques"]

[Text] Recently the Xizang Autonomous Region CCP Committee and Autonomous Region People's Government convened a regional work conference on the rural pastoral area, which set a battle goal and specific measures to be taken for "a small change within 3 years, a moderate change within 5 years, and a major change within 10 years" to give guidance to the broad masses of peasants and herdsmen now that the problem of food and clothing has been preliminarily solved in order to make efforts to advance in depth and in breadth, to carry out economic cultural and economic construction in a planned step by step way, so that Xizang will gradually flourish and become prosperous.

The autonomous region CCP Committee raised the goal of a small change within 3 years, a moderate change within 5 years and a major change within 10 years on the basis of an idea and a demand put forward by comrades Hu Yaobang and Wan Li during an inspection trip they made to Xizang in May 1980. Following 2 years of rest and recuperation, the farming and livestock industry production of the entire region has revived and developed. The problem of food and clothing has been solved for more than 90 percent of the masses, and average per capita earnings for peasants and herdsmen amounts to 200 yuan. This provides a material foundation for guiding the peasants and herdsmen to cure poverty further and become prosperous.

The goal of one small change within 3 years is as follows: Beginning in 1980 and after 3 years of effort to make production develop after having been revived for a preliminary breaking away from poverty, average per capita earnings for peasants and herdsmen reaching 220 to 230 yuan, and average per capita earnings in 20 percent of counties, brigades and households reaching 300 yuan. The goal of moderate change is the realization of consistent development of production by the end of 1985 with a complete break away from

poverty, average per capita income amounting to from 280 to 300 yuan. The idea of major change is substantial development of production by the end of 1990 with the realization of initial prosperity, average per capita earnings amounting to from 400 to 500 yuan. Specific standards were also set for the peasants' and herdsmen's food, clothing, daily use items, housing, travel, culture, education, science and technology, health, party style, civilian behavior, and spiritual civilization at different stages. On the basis of present circumstances, all prefectures, counties, communes and brigades have formulated, or are now formulating, individual goals and plans.

Acting on the basis of actual circumstances in Xizang, everybody diligently studied measures for realizing the aforestated objectives. They pointed out that henceforth substantial development will be required and, in addition to bringing further into play the power of policies, it will also be necessary to rely on improved production conditions and the adoption of advanced scientific techniques. Currently, grain yields per unit of area and per capita are below levels for the country as a whole. Though the number of livestock per capita is the highest in the country, livestock products per capita are lower, on average, than in other pastoral regions of the country. In order to change this state of affairs, while maintaining policies unchanged, it is necessary to guide peasants and herdsmen in proceeding in accordance with abilities to carry out capital construction of farming and the livestock industry, and on the foundation existing in Xizang to promote simple and useable, advanced scientific techniques with outstanding benefits.

A look back at 2 years of experiences caused everyone to emphatically note that the elimination of poverty must rely primarily on farming and the livestock industry, and that becoming prosperous will require, to a very large extent, reliance on economic diversification. Xizang has a large area and numerous resources, yet the utilization rate is the lowest in the country, and it is a place in which tremendous potential for development exists.

9432

CSO: 4007/542

'SET BASE PROCUREMENT FIGURE' SYSTEM EXPLAINED

Beijing NONGGUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 8,
Aug 82 pp 42, 43

[Article by Zhejiang Provincial Agricultural Commission Office: "Accurately Set Base Procurement Figures to Advance Development of Production"]

[Text] Zhejiang Province's natural resources for agriculture are plentiful and rural economic diversification is well developed. It is an integrated agricultural region. Presently procurement consists principally of agricultural and sideline products with the institution of "accurately set base procurement figures" guaranteed to remain unchanged for several years, output in excess of quotas being divided between state procurement and retention by producers with bonuses being given for excess procurement, (which will be termed "fixed base figures" below).

Why The Need For Fixed Base Figures

It is fully necessary for the state to carry out state requisition procurement and assigned procurement policies for major agricultural and sideline products. However in the procurement of Category II agricultural and sideline products, there has been stifling centralization and over regulation, the more produced, the more procured and the more shipped, producers lacking self-determination in controlling a portion of the agricultural and sideline products and finding it difficult to use left-over products for development of processing industries. This has hurt the peasant's legitimate economic interests and stifled peasant initiative for development of commodity production.

Following the Third Plenary Session [of the 11th Party Central Committee], the Central Committee took a series of actions to effect major readjustment of agricultural policies. In pursuit of a program of "emancipation of thinking, liberalization of policies, and enlivening the economy," Zhejiang Province summarized the lessons of experience in procurement of agricultural and sideline products, and gained enlightenment from the practice of fixed base figures in the procurement of grain, cotton, and oil-bearing crops. Then, following the spirit of taking the national economy as the key link with market regulation being supplementary, giving concurrent concern to the welfare of the country, the collective, and commune members, looking

after both production area and marketing area, rural and urban needs, and following discussion and study with sectors concerned, the provincial government approved institution, beginning in 1980, of "fixed base figures" for 14 kinds of Category II agricultural and sideline products including tea, citrus fruits, mat straw, Catalpa timber, Chinese tallow tree seeds, rosin, raw lacquer, and aquatic products.

How Base Figures Are Set

The main points of the "fixed base figures" that Zhejiang Province instituted for 14 kinds of Category II agricultural and sideline products were as follows:

First, a well defined guiding thought on "fixed base figure" to ensure fulfillment of state quotas. "Fixed base figures" are, in reality, assigned procurement. Their basic point of departure is: no decline in existing state procurement levels, but increases still being possible; guaranteeing commune and brigade self-determination in the handling of products remaining after fulfillment of state prescribed sales quotas so that the peasants will be able to gain concrete benefits from efforts to increase production. Depending on different circumstances for different products, the base figures to be set for some will be either average actual procurement last year or for the past several years, while for others quotas will be set on the basis of calculation of proportional procurement by the state and retention by producers of average quantities for the present year or for the past several years, guaranteed not to change for several years. For example, tea, is a major special product of the province and also has traditionally been a major export item. In 1979 it accounted for one-fourth of the national output and the quantity purchased by the state, and for 30 percent of the national quantity exported. In a trial run of "set base procurement figures, division of production in excess of quota and reduction of taxes on excess procurement, giving up some profit," the base figure used was actual procurement in 1978, the province implementing these figures echelon by echelon to the counties, communes, and production brigades, no change guaranteed for 5 years. Tea produced in excess of base figures was divided up 60-40, i.e., 60 percent was procured under state plan, and 40 percent was under the control of communes and brigades. The portion under control of communes and brigades could be marketed freely or arrangements made to send it to other provinces; alternately it could also be sold to the state.

Second was to permit peasants to gain more benefits from increases in production and sales in excess of quotas. The main way in which this was done was as follows: One was to reduce taxes by giving up some profit. In the case of tea, for example, the portion that was a part of base figures was purchased at list price. The portion in excess of base figures could be sold to the state (as unfired tea leaf) at a reduced tax rate, the state tea plants giving up some of their profits thereby. As a benefit of the reduction in taxes, the 30 percent increase over list price for spring tea, and the 25 percent increase for summer and autumn tea was paid directly to producing units with no additional bonuses being given. For the portion of profits given up, 70 percent of state tea plant processing profits were

rebated to tea producing counties that had exceeded base figures for their use in developing tea production. Second was purchase at negotiated prices of amounts in excess of base figures. Provincial level departments in charge centrally set fluctuating prices, maximum ceiling prices and maximum floor prices for different individual products on the basis of stable price policies. Third was the use of two kinds of prices. By this is meant that a certain proportion from within assigned quotas was designated for procurement at subsidized price or negotiated price. In the case of Chinese tallow tree seeds (or Chinese tallow oil), for example, no matter the quantities purchased, and irrespective of collective or state farm distinctions, one-half of the actual amount offered for sale was purchased at list price and one-half was purchased at a subsidized price. Fourth was assistance funds given for production. For sugarcane, for example, for every dan purchased at the prevailing average price of 2.25 yuan, 0.45 yuan in assistance funds was given for production to be paid by sugar mills at the time of purchase. The problem of a source of funds for this purpose was solved through the transfer of industrial and commercial profits and reduction or exemption from industrial and commercial taxes.

Third, appropriate readjustment of market management was done. The provincial government issued instructions for the readjustment of agricultural and sideline product market management classification tables and limitations on negotiated purchases and negotiated sales requiring that except for silkworm cocoons, cowhides and such industrial raw materials, all other Category II agricultural and sideline products could, following producer unit fulfillment of quotas, be sent to market for individual or joint marketing, could be processed by producers for the development of agriculture, industry, and commerce, or could be consigned to commercial departments to act as procurement and marketing agents. It was stipulated that until such time as any given commune (or state farm) had completed its quotas for citrus fruits, none could be sent to market. However, once any given commune (or state farm) had fulfilled individual unit quotas for individual varieties, as attested by issuance of certification by the local supply and marketing cooperative, it had the right to sell individually or to organize joint sales, had the right to undertake processing, or to arrange with the supply and marketing cooperative for purchases and sales at negotiated prices, or have the supply and marketing cooperative act as agent in purchase and sales.

Outstanding Results After Two Years of Implementation

Practice has shown that following "set base figures", not only was fulfillment of state procurement and upward assignment quotas guaranteed, but the interests of local areas, communes and brigades, and peasants were looked after for advancement of the development of production. Specific benefits were as follows:

First, promotion of the development of production. Comparison of 1981 with 1979 shows an 80,000 mu increase in the silkworm mulberry area in the province and a 13 percent rise in silkworm cocoon output; a 150,000 mu increase in the tea growing area and a 33.8 percent increase in output; a 140,000 mu increase in the citrus growing area, a 270,000 mu increase in

the jute growing area, and a respective 22 and 6.5 percent increase in output in 1981 as compared to 1980. Increases also occurred in the afforested area, in moso bamboo reserves, in tung seeds, Chinese tallow tree seeds, and freshwater fish.

Second was assured state procurements. Following "fixed base figures," except in the case of individual varieties, the procurement quotas handed down by the province were all overfulfilled. During the first year, the total value of agricultural and sideline products purchased by the supply and marketing system increased 5.3 percent to reach 1.27 billion yuan. This included procurement of 1.23 million dan of silkworm cocoons, an 11.8 percent increase and 23 percent more than base figures; and 1.35 million dan of tea, an 11.8 percent increase and 22.7 percent more than base figure. Last year was the second year of "fixed base figures," and the province overfulfilled, a whole month ahead of schedule, its procurement quotas for the year as a whole, the total procurement figures increasing by another 10.3 percent. This included procurement of 1,554,000 dan of tea, 454,700 dan over the base figure; and 1.24 million dan of silkworm cocoons, 240,000 dan more than the base figure. As a result of increase in quantities purchased, the supply requirements of light and textile industries, the foreign export trade, and markets were substantially assured.

Third was increase in peasant income. Statistics for 2 years on "fixed base figures" for five kinds of tea show that after fulfilling base figures, the added price peasants obtained from the sale of quantities in excess of base figures was 46.27 million yuan. The added price peasants obtained from base figures for 14 kinds of products amounted to approximately 100 million yuan. If benefits obtained from individual marketing or processing of products following fulfillment of base figures is added to this, increased peasant earnings amount to more than 150 million yuan. Despite two consecutive years of decrease in grain output in Zhejiang Province as a result of disasters, the number of brigades in which per capita earnings from the collective averaged more than 300 yuan still rose from 129 in 1979 to 660 in 1981 (not including marine fishing industry production brigades).

Fourth, it increased state earnings. Statistics on the province's tea, cotton, silkworm cocoons, sugarcane, and jute show that over a 2 year period state tax revenues from the portion procured in excess of base figures amounted to 102.82 million yuan and industrial profits amounted to 95.55 million yuan for a total increase in earnings of 198.37 million yuan. Increased price payments amounted to only 75.03 million yuan, however, or only 37.82 percent of national earnings.

In short, results have been outstanding from 2 years of implementation of "fixed base figures." This method should gradually become a basic method for embodying the principle of taking the planned economy as the key link with market regulation being supplementary in the procurement of agricultural and sideline products.

LIVESTOCK FEED PRODUCTION REPORTED GREATLY INCREASED

Beijing ZHONGGUO CAIMAO BAO in Chinese 3 Aug 82 p 2

[Article: "Zhejiang Province Energetically Develops Livestock Feed Processing Industry; Plans Building of 120 Plants in 3 Years For a Livestock Feed Processing Capacity of 1 Billion Jin"]

[Text] Zhejiang Province, one of the major hog raising centers of the country, is gradually building a livestock feed processing industry system. The province is preparing to build 120 livestock feed plants between now and 1984, increasing to 1 billion jin its livestock feed production capacity.

The provincewide livestock feed work conference recently convened by the Provincial Food Department made specific arrangements for implementation of this year's plant building plans. Full use is to be made of surplus plant buildings and equipment at existing grain and oil processing plants, and the path of tapping potential, restructuring, and improving is to be taken in carrying out expansion and improvements. An overwhelming majority of the 60 plants planned for this year will be completed and go into production this year.

Zhejiang Province annually uses more than 3 billion jin of grain as livestock feed. In raising hogs, in addition to the use of proper amounts of coarse green fodder, the peasants have always used mostly grains for livestock feed. Particularly in prefectures like Jiaying and Jinhua, which are major rice producing areas, and where little other grain is grown, the peasants mostly feed rice to their hogs. This feeding method wastes a lot of grain, is costly, does not provide complete nutrition, requires a long feeding period, and wastes both labor and firewood.

In order to change this peasant feeding method and promote development of hog production, the Provincial People's Government has adopted numerous measures during the past 2 or 3 years, and has vigorously increased production and promotion of the use of blended livestock feeds and mixed livestock feeds. Province provided funds for investment in development of the livestock feed industry for the period 1979 to 1981 amounted to 5.8 million yuan for the building of 40 livestock feed plants. As of now, 25 of these plants have been constructed. Each of these plants makes full use of silkworm chrysalises, fish meal, bone meal, powdered blood, rapeseed cake, cottonseed

cake, and such protein resources to produce blended feeds and mixed feeds. Last year production increased to 400 million jin, and this year it is expected to rise to 500 million jin. In addition to assuring state award sales, the product of these plants, which uses corn to make blended and mixed livestock feeds, is traded with the peasants for rice. During the last half of last year alone, the province took in more than 50 million jin of paddy in exchanges. Not only was hog production promoted, but national storage of paddy was augmented.

9432

CSO: 4007/554

RUNNING WATER PROVIDED TO SELECTED RURAL AREAS

Beijing RENMIN RIBAO in Chinese 26 Jul 82 p 1

[Article: "More Than 3 Million Peasants in Zhejiang Province Served By Running Water; More Than 3,900 Running Water Plants Built in Rural Villages"]

[Text] Zhejiang Province has built more than 3,900 rural running water plants, and more than 3.5 million peasants are users of clean, sanitary running water.

Rural villages in Zhejiang Province have always used mostly river and pond water for drinking, but water quality was poor and pollution serious. The masses urgently demanded improvement in drinking water conditions. Provincial Governor Li Fengping [2621 0023 1627] and Vice Governor Liu Yifu [0491 0076 1133] went into rural villages on several occasions, going to places where drinking water conditions were poor and the incidence of disease high to gain an understanding of conditions, obtain firsthand data, and direct water improvement work. Ever since last year, many counties and cities including Ningbo, Jiaxing, Jinhua and Hangzhou established water improvement leadership teams, putting in place personnel, technology, materials, and operating expenses.

Virtually all of the funds required for providing running water and improving drinking water sanitation in rural Zhejiang were contributed by commune and brigade collectives and the masses of commune members.

The use of running water in rural villages has reduced the incidence of communicable diseases and improved commune member household environmental sanitation and individual sanitation, improving the physical health of the broad masses of commune members.

9432

CSO: 4007/512

AUTHOR: LI Yanfang [2621 5333 5364]

ORG: Institute of Plant Protection, Shanxi Provincial Academy of Agricultural Sciences

TITLE: "Study of Physiological Races of Wheat Leaf Rust Mycorrhizae in Shanxi Province"

SOURCE: Taiyuan SHANXI NONGYE KEXUE [SHANXI AGRICULTURAL SCIENCES] in Chinese No 8, 1982 pp 12-14

ABSTRACT: Wheat leaf rust tended to spread in spring and winter wheat planting areas of Shanxi Province; crop failure resulted in certain years. The mycorrhiza can winter and summer in the province so as to complete the yearlong infection cycle. The earlier the fall sowing, the earlier is the outbreak of infection and the more severe for the crop infection. At present, very few wheat varieties have resistance against this leaf rust; therefore, selective breeding of such varieties with resistance to leaf rust and high yield is important to plant protection.

After years of study, Yezhong No 1, No 2 and No 3, as well as Leixing No 11 physiological races were identified as the source of infection. The paper describes the bacterial culture and isolation. Inoculations with mycorrhizae were conducted in recent years to obtain relatively good-resistance wheat varieties, such as the Luofulin No 10 and No 13, the Shanqianmai, the Gaojiasuo, and the

[continuation of SHANXI NONGYE KEXUE No 8, 1982 pp 12-14]

Zhongwu; these varieties can be used as resistance parental pairs for selective breeding.

10424

CSO: 4011/229

Grain Experimentation

AUTHOR: CHEN Yuhu [7115 3768 5706]
LIN Zuoping [2651 0155 1627]

ORG: Both of Taizhou Prefectural Institute of Agricultural Sciences, Zhejiang Province

TITLE: "A Preliminary Genetic Study on Growth Period in F_1 of Hybrid Rice of *O. Sativa* Subspecies Keng"

SOURCE: Beijing YICHUAN [HEREDITAS] in Chinese No 4, 1982 pp 5-7

ABSTRACT: Breakthroughs with hybrid Keng subspecies were reached in Liaoning, Beijing, Xinjiang and Yunman; these subspecies are mostly early-ripening Keng subspecies. The growth periods were markedly shortened to 105-110 days after these subspecies were introduced into southern Zhejiang, from 156 days in Liaoning in the case of the Fengjin/C57 rice variety. The shortened growth period leads to a reduction in the sprouting number of seedlings and small spike types, as well as lack of growth vitality. Therefore, in the south of China the selective breeding of subspecies Keng should first solve the problem of growth period. The paper describes the observation of full spike growth (in days) as well as the relationship between spike sprouting days and number of spikes with and without natural lighting in greenhouse cultivation. Higher hybrid vitality can be obtained by cross breeding of restoration varieties (with the appropriate growth period) with a sterile variety of late- or medium-ripening Keng subspecies

[continuation of YICHUAN No 4, 1982 pp 5-7]

suitable to local cultivation. A certain photosensitivity of the rice variety is required to grow in Zhejiang Province. Included are five figures and one table. The authors express their gratitude to associate professor GAO Mingwei [7559 2494 1414] of Zhejiang Agricultural University for his counsel.

AUTHOR: GUO Caiyue [6753 1752 2588]
CAO Ziyi [2580 1320 5030]

ORG: Both of Plant Physiology Teaching and Research Laboratory, Department of Agriculture, Gansu Agricultural University, Wuwei

TITLE: "Effects of Different Genotypes on Induction Frequency in Anther and Scutellum Culture of Maize in Vitro"

SOURCE: Beijing YICHUAN [HEREDITAS] in Chinese No 4, 1982 pp 8-10

ABSTRACT: In recent years, spurred by progress in maize cell and tissue culture, maize improvement has been sought with the cell and tissue manipulation. In 1975, it was reported that the Institute of Botany of the Chinese Academy of Sciences obtained, for the first time, pollen-bearing maize stalks. Later in 1979 and 1980, Chinese researchers began the hybrid breeding of maize from pollen culture. These reports mentioned that the genotypes are related to the induction and induction frequency. The paper reports the preliminary results on maize culture in vitro for inducing the growth of maize stalks from cells. In the low humidity environment of Northwest China, the authors succeeded in transplanting maize stalks with the blending of sand, loam and sawdust after initial failure. Included are three tables and four photographs.

10424
CSO: 4011/230

Meteorology

AUTHOR: YUAN Kailang [5913 7030 2597]
SONG Yongkang [1345 3057 1660]
SUN Yufeng [1327 3768 7364]

ORG: ALL of Dairen Municipal Bureau of Meteorology

TITLE: "Agroclimatic Classification at the County Level by Use of Meteorological Yield Data"

SOURCE: Beijing QIXIANG [METEOROLOGICAL MONTHLY] in Chinese No 7, 1982 pp 11-12

ABSTRACT: The authors processed meteorological yield data by using three methods: natural normalized solution, indistinct grouping analysis, and Euler's distance analysis. The following results were obtained: the first and second characteristic vector distributions by using natural normalized solution, and other results by use of the other analyses. An electronic computer was employed in classifying meteorological yield data; several methods of classification were compared to find a feasible and sound plan. The indistinct grouping analysis and Euler's distance analysis have generally similar outcomes; calculations are simple and analysis is intuitional in the former method, but occasionally grouping may not be attained. In the method of natural normalized solution, the meteorological yield is considered as a kind of time-space distribution field with certain agroclimatic significance and good convergence. Among the characteristic vectors of the main characteristic values, relatively ideal distribution can be selected. In addition, the time components obtained can be used for the classification of high

[continuation of QIXIANG No 7, 1982 pp 11-12]

and low yield years, as well as for agroclimatic analysis and harvest forecasting. However, an electronic computer should be used because the volume of calculation is quite high.

AUTHOR: XU Huan [1776 3562]
DU Huizhu [2629 1979 3796]
MENG Zhaohan [1322 2507 5060]

ORG: XU and DU of Nanjing Institute of Agricultural Mechanization; MENG of
Institute of Meteorology

TITLE: "The Use of Wind Energy as a Driving Force for Irrigation"

SOURCE: Beijing QIXIANG [METEOROLOGICAL MONTHLY] in Chinese No 7, 1982 pp 16-17

ABSTRACT: The paper discusses the application of wind energy for the irrigation of paddy field in Jiangsu Province. Three terms are introduced: start-up wind velocity, cutoff wind velocity and designed wind velocity. The start-up and cutoff wind velocities are, respectively, 3 and 20 meters per second, since the wind wheel will not turn at lower than 3 m/sec and the wheel will be made to stop turning at more than 20 m/sec of wind velocity, to avoid damaging the installation. The main types of wind wheels in the province are from 6 to 7.5 meters in diameter, with a wind utilization index ranging from 0.18 to 0.35. Mathematical formulas are presented to derive data for wind energy, amount of water lifted, and number of mu to be irrigated. One of two tables lists the amount of water lifted and the number of mu irrigated for lifting water 1, 2 and 3 meters in Dafeng County for the early-, medium-, and late-ripening rice varieties. Rainfall is also taken into account in the calculation.

10424

CSO: 4011/231

END